LBT-N600AV

SERVICE MANUAL

AEP Model
UK Model

- LBT-N600AV is composed of following models.
  As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-N600AV					
	AEP	UK	G	IT	EE	CIS
Tuner, Preamplifier					STR-N600	
Power Amplifier	TAN-N600					
Cassette Deck	TC-N500					
Compact Disc Player	CDP-N500					
Digital Surround Processor	SDP-N600					

Note: Abbreviation
G : German Model
IT : Italian Model
EE : East European Model

PARTS LIST

NOTE:

- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Part No.	Description
1-467-998-11	COMMANDER, STANDARD (RM-S600L)
1-501-374-11	ANTENNA, LOOP
1-501-594-31	ANTENNA (FM)
1-769-392-11	CORD (WITH CONNECTOR) (16P-16P) (STR-TAN)
1-769-393-11	CORD (WITH CONNECTOR) (17P-17P) (STR-TC-CDP)
1-769-394-11	CORD (WITH CONNECTOR) (5P-5P) (TAN-SDP)
1-769-395-11	CORD (WITH CONNECTOR) (9P-9P) (STR-SDP)
3-707-584-21	COVER, BATTERY (For RM-S600L)
3-798-422-11	MANUAL, INSTRUCTION (ENGLISH) (UK)
3-798-422-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-798-422-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, G, IT)
3-798-422-61	MANUAL, INSTRUCTION (ENGLISH, GERMAN, PORTUGUESE, RUSSIAN) (EE, CIS)
＊ 4-973-089-01	INDIVIDUAL CARTON (AEP, UK, G, IT)
＊ 4-973-091-01	INDIVIDUAL CARTON (EE, CIS)
＊ 4-973-306-01	CUSHION (TAN/TC)
＊ 4-973-307-01	CUSHION (UPPER) (STR/CDP/SDP)
＊ 4-973-650-01	CUSHION (LOWER) (STR/CDP/SDP)

COMPACT Hi-Fi STEREO SYSTEM

SONY®

English
95D0562-1
Printed in Japan
© 1995. 4

Sony Corporation
Comsumer A&V Products Company
Home A&V Products Div.

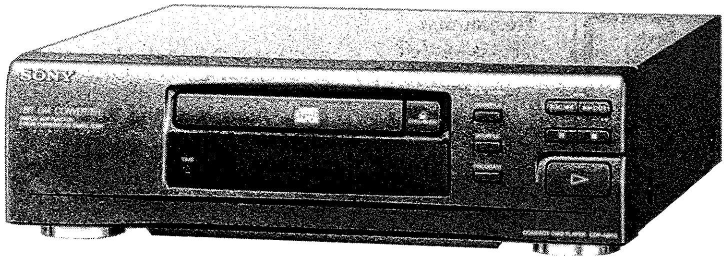
9-960-255-11

Published by Home A&V Products Div.
Quality Engineering Dept.

CDP-N500

SERVICE MANUAL

AEP Model
UK Model



CDP-N500 is the CD player section
in LBT-N500 and LBT-N600AV.

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM14-5BD19
Base Unit Type	BU-5BD19
Optical Pick-Up Type	KSS-213B

SPECIFICATIONS

Laser	Semiconductor laser
Wavelength	780 - 790 nm
Weight	Approx. 2.7 kg
Dimensions	Approx. 355 x 105 x 305 mm (w/h/d, including projections)

Design and specifications are subject to
change without notice.

COMPACT DISC PLAYER

SONY®

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This Compact Disc player is classfied as a CLASS 1 LASER product.
The CLASS 1 LASER product label is located on the rear exterior.

CAUTION	: INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
ADVARSEL	: USYNLIG LASERSTRÅLING VED ÅBNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGA UDSÆTTELSE FOR STRALING
VARO'	: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA LASERSATEILYLLE
VARNING	: LASERSTRALING NAR DENNA DEL AR OPPNAD OCH SPARREN AR URXOPPLAD
ADVARSEL	: USYNLIG LASERSTRALING NAR DEKSEL APNES UNNGA EKSPONERING FOR STRALEN

This caution label is located inside the unit.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor ofthe circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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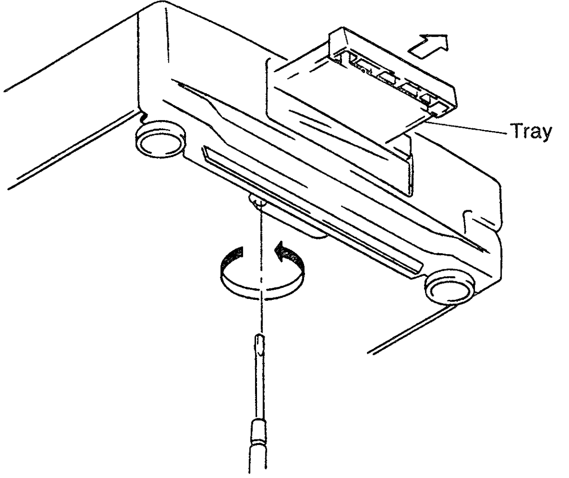
SERVICING NOTE

• POWER SUPPLIED WHILE SERVICING

This unit does not work independently because of not having the power supply.
It must be unite together with the other units when repaired.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

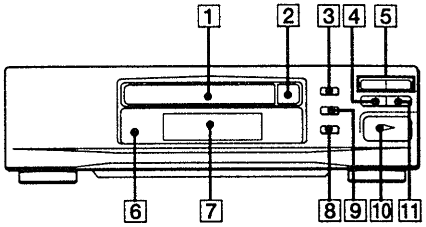


Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow.
∗ To close the disc tray, turn the driver in the reverse direction.

SECTION 1
GENERAL

This section is extracted from instruction manual.

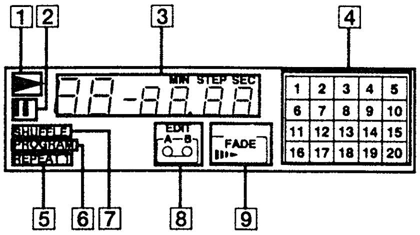
Front Panel



1
2
3
4
5
6
7
8
9
10
11

1 Disc tray
2 ⏏ OPEN/CLOSE button (7)
3 CONTINUE button (8)
4 ❚❚ (pause) button (8)
5 ⏮◁◀◀/▶▶▷⏭ buttons (7, 8)
6 TIME button (7)
7 Display window (7)
8 PROGRAM button (8)
9 SHUFFLE button (8)
10 ▷ (play) button (7)
11 ■ (stop) button (7)

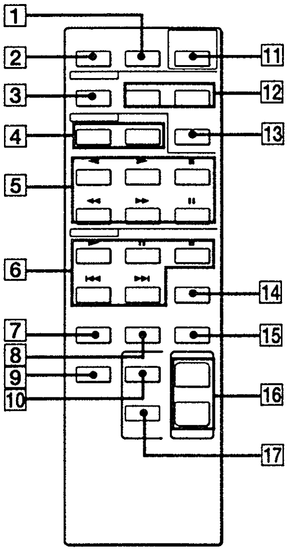
Display Window



1
2
3
4
MIN STEP SEC
SHUFFLE
PROGRAM
REPEAT
EDIT
A—B
FADE
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
5
6
7
8
9

1 Play indication (7)
2 Pause indication
3 Playing time indications (7)
4 Music calendar (7)
5 REPEAT indication (9)
6 PROGRAM indication (17)
7 SHUFFLE indication (8)
8 EDIT indications (17)
9 FADE indications

Remote (RM-S500L)



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

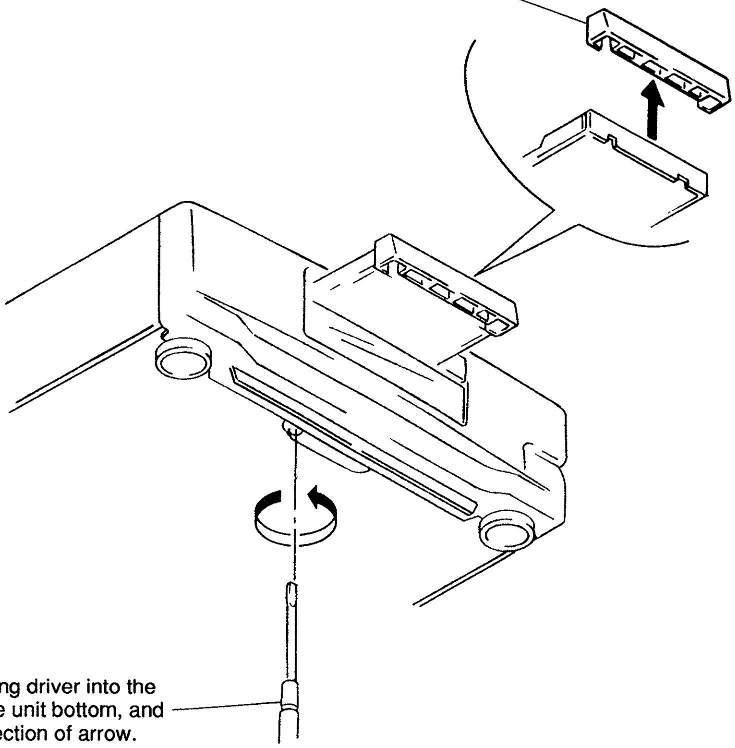
1 SLEEP button (22)
2 FUNCTION button (16, 17, 19)
3 TUNER BAND button (10, 23)
4 DECK SELECT buttons (15)
5 TAPE operating buttons (15)
  ◀/▶ (reverse side play/front side play)
  ◀◀/▶▶ (fast leftward/fast rightward)
  ■ (stop)
  ❚❚ (pause)
6 CD operating buttons (7)
  ▶ (play)
  ⏮/⏭ (AMS*)
  ❚❚ (pause)
  ■ (stop)
  *AMS: Automatic Music Sensor
7 CHECK button (8, 18)
8 CLEAR button (8)
9 DISC SKIP button (you cannot use this button with this model)
10 SELECT 1-5 button (20, 21)
11 SYSTEM POWER button (7, 10, 15, 20)
12 PRESET (+/–) buttons (12)
13 STEREO/MONO button (11)
14 REPEAT button (8, 9)
15 EDIT button (17)
16 VOL (volume) buttons (7)
17 P.FILE 1-5 button (21)

SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

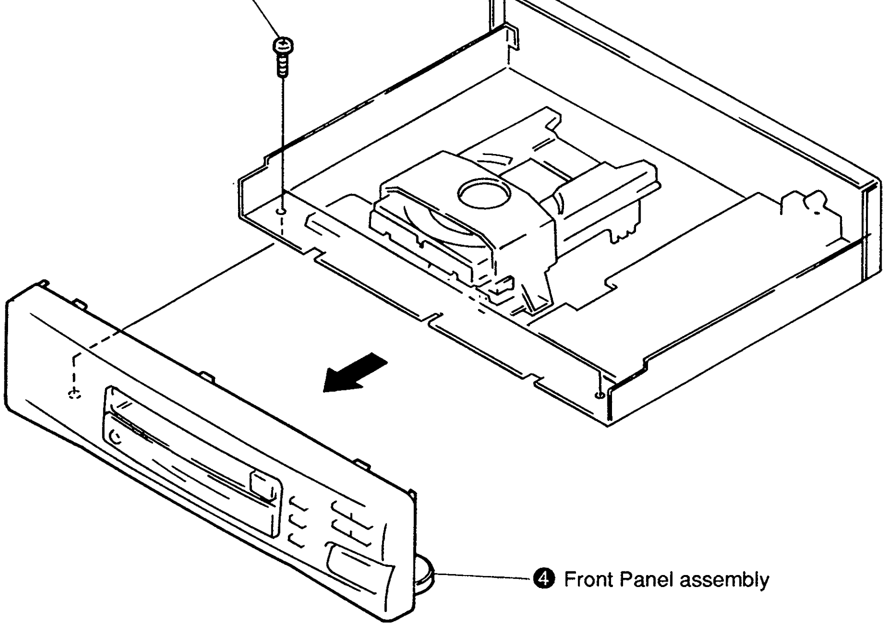
2-1. FRONT PANEL

❷ Loading panel



❶ Insert a tapering driver into the aperture of the unit bottom, and ture in the direction of arrow.

❸ Screw (BVTP3x8)



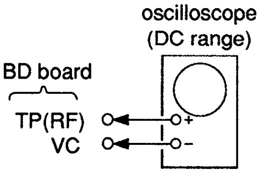
❹ Front Panel assembly

SECTION 3
ELECTRICAL ADJUSTMENTS

Note :

1. Basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

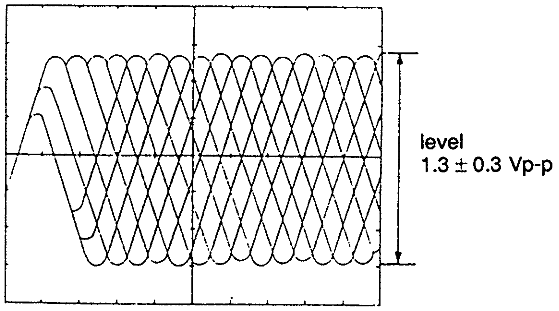
Focus Bias Adjustment



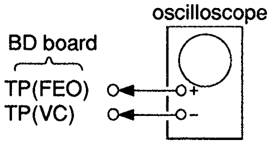
Procedure:

1. Connect oscilloscope to test point TP (RF). (GND terminal : VC)
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Adjust RV101 so that the waveform is clear.
   (Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.)
5. After adjustment, check the RF signal level.

- RF signal
  VOLT/DIV : 200 mV
  TIME/DIV : 500 nS



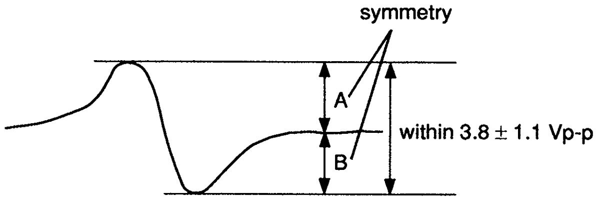
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3.8±1.1 Vp-p.

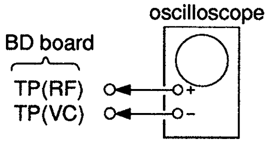
S-curve waveform



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



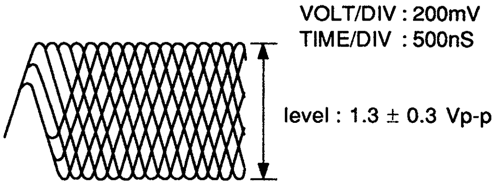
Procedure :

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

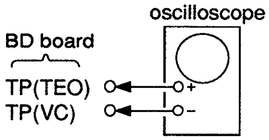
Note :

Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

RF signal waveform



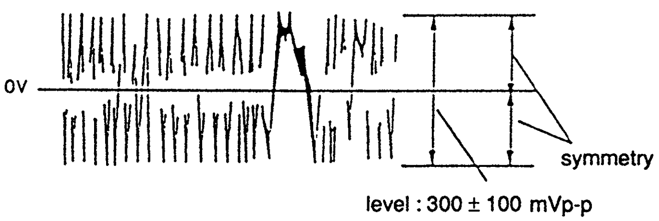
E-F Balance Check


oscilloscope
BD board
TP(TEO)
TP(VC)
+
-

Procedure :

1. Connect oscilloscpe to test point TP (TEO).
2. Turned Power switch on.
3. Connect pin ㉔ of IC601 on the PANEL board to GND with a lead wire.
4. Put disc (YEDS-18) in and playback.
5. Push TIME button.
6. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.

Traverse waveform



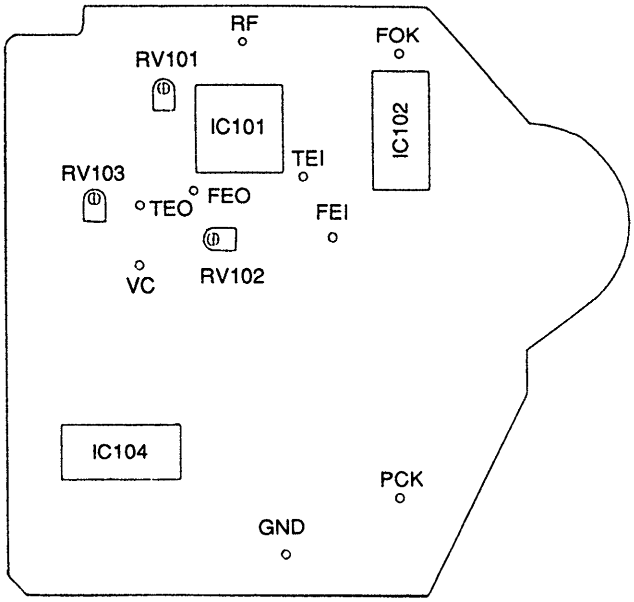
7. Remove the lead wire connected in step 3.

Focus/Tracking Gain Adjustment (RV102, RV103)

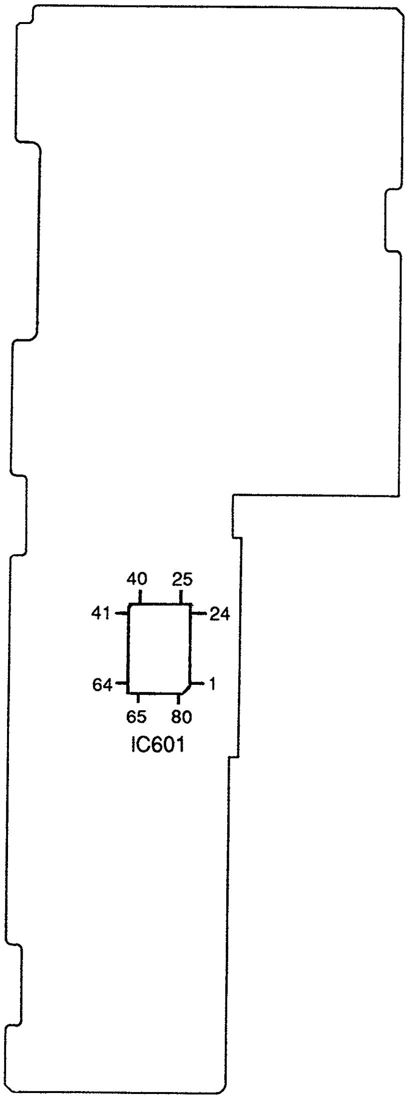
This gain has a margin, so even if it is slightly off. There is no problem.
Therfore, do not perform this adjustment.
Please note that it should be fixed to mechanical center position when you moved and do not know original position.

Adjustment Location :

[BD BOARD] (Conductor Side)

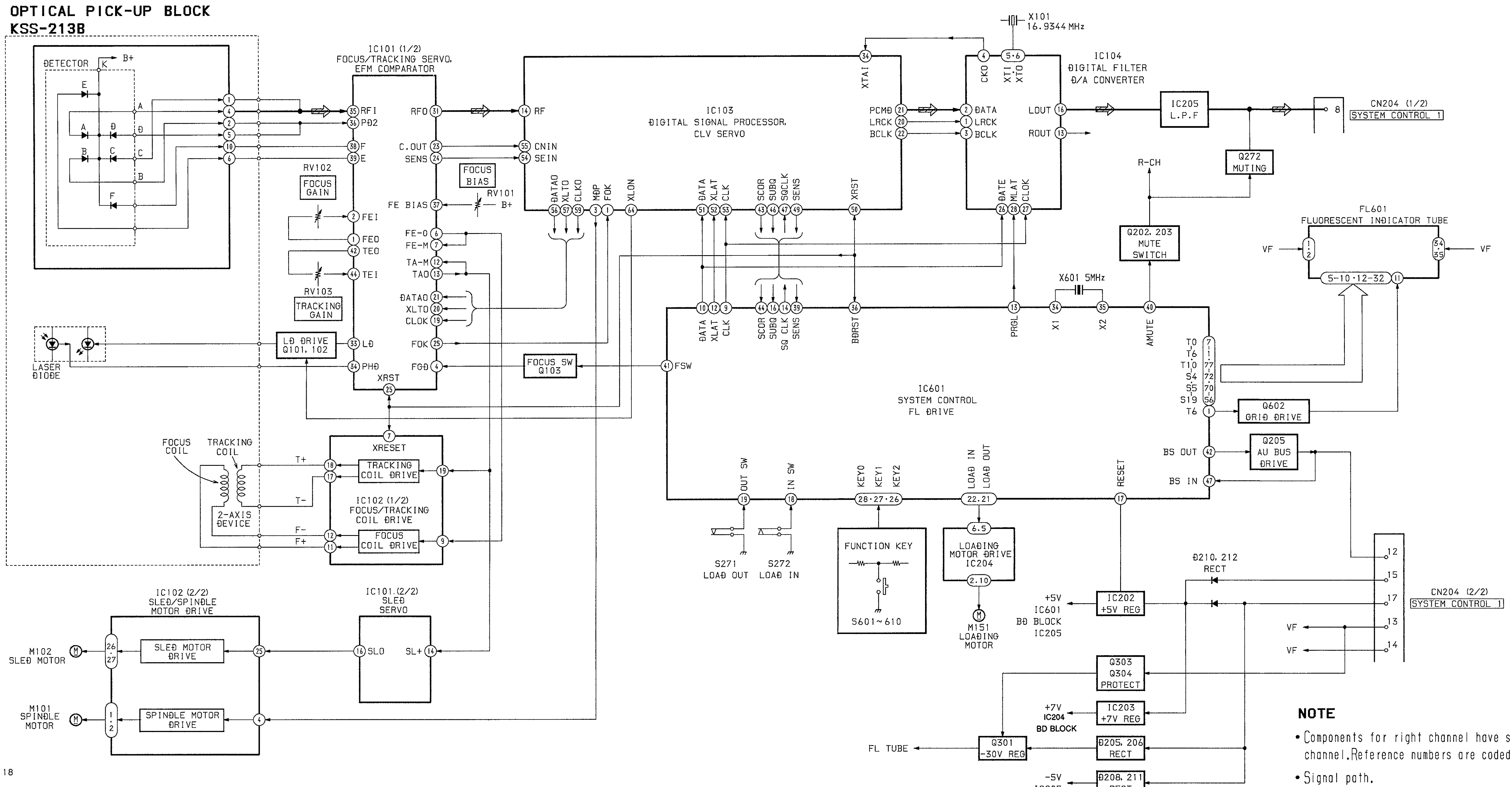

RF
FOK
RV101
IC101
IC102
TEI
RV103
TEO
FEO
FEI
RV102
VC
IC104
PCK
GND

[PANEL BOARD] (Conductor Side)


40
25
41
24
64
1
65
80
IC601

SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM


OPTICAL PICK-UP BLOCK
KSS-213B
DETECTOR
K
B+
E
A
D
B
C
F
LASER DIODE
FOCUS COIL
TRACKING COIL
2-AXIS DEVICE
T+
T-
F-
F+
IC101 (1/2)
FOCUS/TRACKING SERVO, EFM COMPARATOR
RFI
PD2
F
E
FEI
FEO
TEO
TEI
LD
PHD
XRST
RFO
C.OUT
SENS
FE BIAS
FE-O
FE-M
TA-M
TAO
DATAO
XLTO
CLOK
FOK
FGD
RV102
FOCUS GAIN
RV103
TRACKING GAIN
FOCUS BIAS
RV101
LD DRIVE
Q101, 102
FOCUS SW
Q103
IC102 (1/2)
FOCUS/TRACKING COIL DRIVE
XRESET
TRACKING COIL DRIVE
FOCUS COIL DRIVE
IC102 (2/2)
SLED/SPINDLE MOTOR DRIVE
SLED MOTOR DRIVE
SPINDLE MOTOR DRIVE
M102
SLED MOTOR
M101
SPINDLE MOTOR
IC101 (2/2)
SLED SERVO
SLO
SL+
IC103
DIGITAL SIGNAL PROCESSOR, CLV SERVO
RF
CNIN
SEIN
DATAO
XLTO
CLKO
MDP
FOK
XLON
DATA
XLAT
CLK
SCOR
SUBQ
SQCLK
SENS
XRST
XTAI
PCMD
LRCK
BCLK
X101
16.9344 MHz
IC104
DIGITAL FILTER
D/A CONVERTER
CKO
XTI
XTO
DATA
LRCK
BCLK
LOUT
ROUT
DATE
MLAT
CLOK
IC205
L.P.F
Q272
MUTING
R-CH
CN204 (1/2)
SYSTEM CONTROL 1
Q202, 203
MUTE SWITCH
FL601
FLUORESCENT INDICATOR TUBE
VF
5-10·12-32
X601 5MHz
IC601
SYSTEM CONTROL
FL DRIVE
FSW
DATA
XLAT
CLK
SCOR
SUBQ
SQ CLK
SENS
BDRST
PRGL
X1
X2
AMUTE
T0
T6
T10
S4
S5
S19
T6
Q602
GRID DRIVE
BS OUT
BS IN
Q205
AU BUS DRIVE
OUT SW
IN SW
KEY0
KEY1
KEY2
LOAD IN
LOAD OUT
RESET
S271
LOAD OUT
S272
LOAD IN
FUNCTION KEY
S601~610
LOADING MOTOR DRIVE
IC204
M151
LOADING MOTOR
D210, 212
RECT
CN204 (2/2)
SYSTEM CONTROL 1
+5V
IC601
BD BLOCK
IC205
IC202
+5V REG
Q303
Q304
PROTECT
+7V
IC204
BD BLOCK
IC203
+7V REG
FL TUBE
Q301
-30V REG
D205, 206
RECT
-5V
IC205
D208, 211
RECT

118

NOTE

- Components for right channel have same values as for left channel.Reference numbers are coded from
- Signal path.

  ⇨ :CD

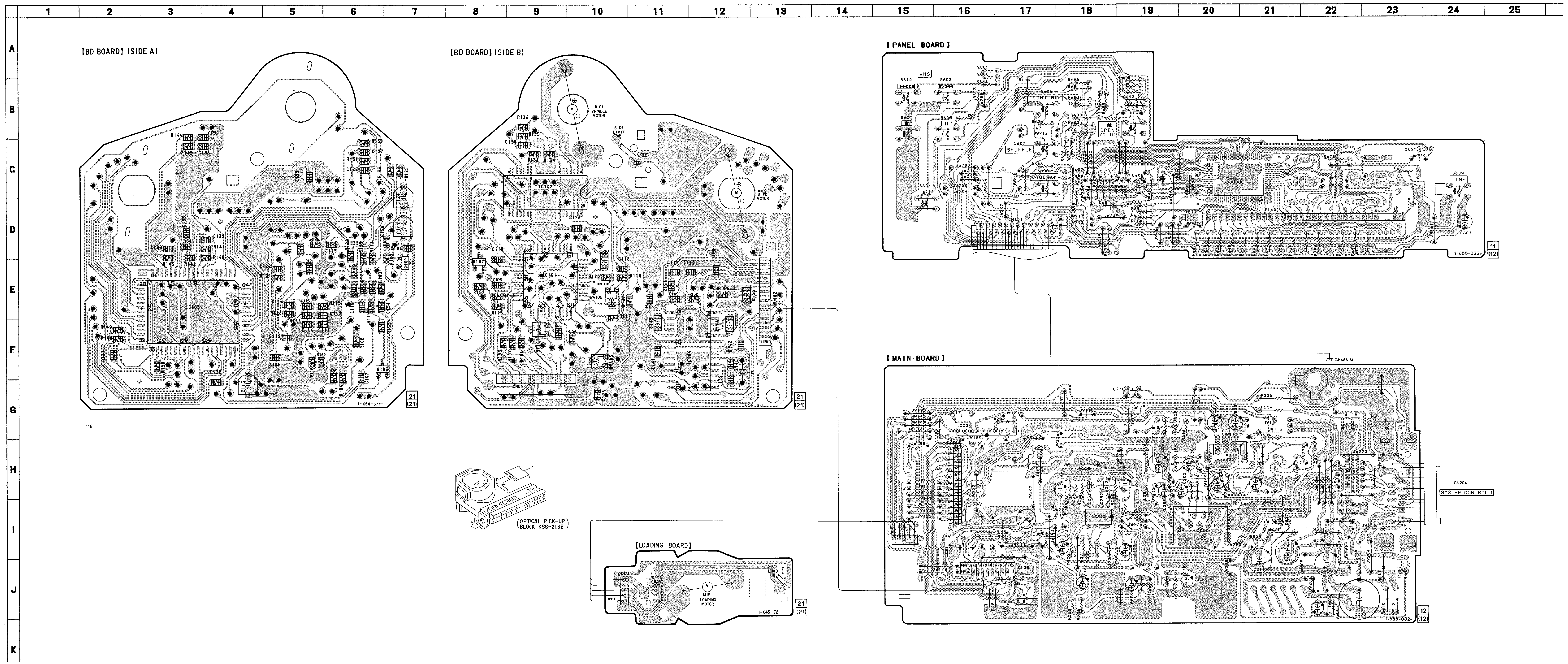
4-2. PRINTED WIRING BOARD

- **Semiconductor Location**

Ref. No.	Location
D1	G-23
D201	H-20
D202	G-17
D204	H-21
D205	I-22
D206	I-21
D207	I-21
D208	J-22
D210	J-23
D211	J-23
D212	J-23
D218	G-19
D219	I-22
D220	I-22
D221	G-22
D222	G-22
IC101	E-9
IC102	C-9
IC103	E-3
IC104	F-12
IC202	I-20
IC203	H-20
IC204	G-16
IC205	I-18
IC601	C-20
Q101	E-7
Q102	E-8
Q103	F-6
Q202	H-17
Q203	H-17
Q205	G-19
Q252	J-19
Q272	J-19
Q301	H-21
Q303	H-19
Q304	H-22
Q602	C-24

Note:

- o—— : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern from the side which enable seeing. (The other layer's patterns are not indicated.)


1
2
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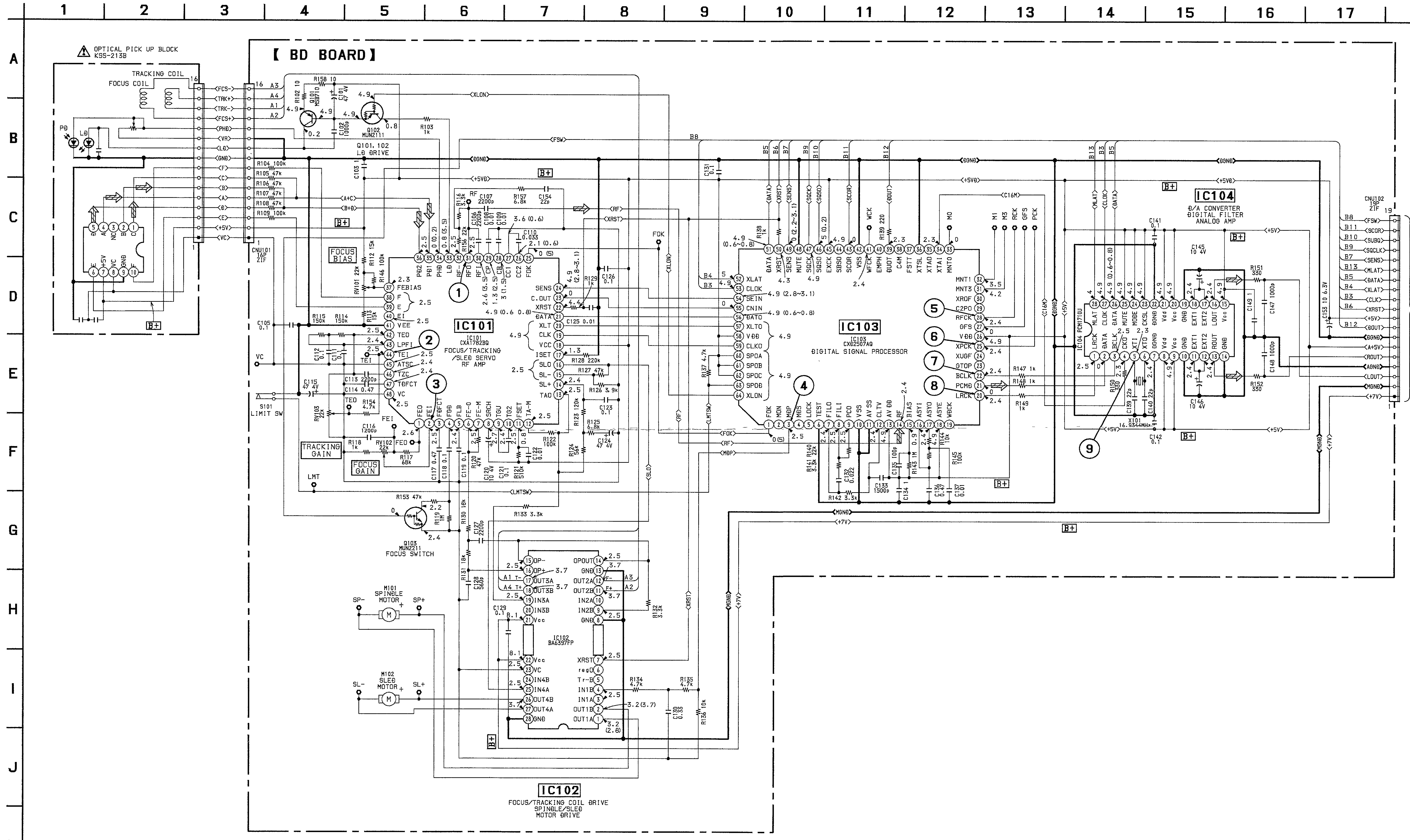
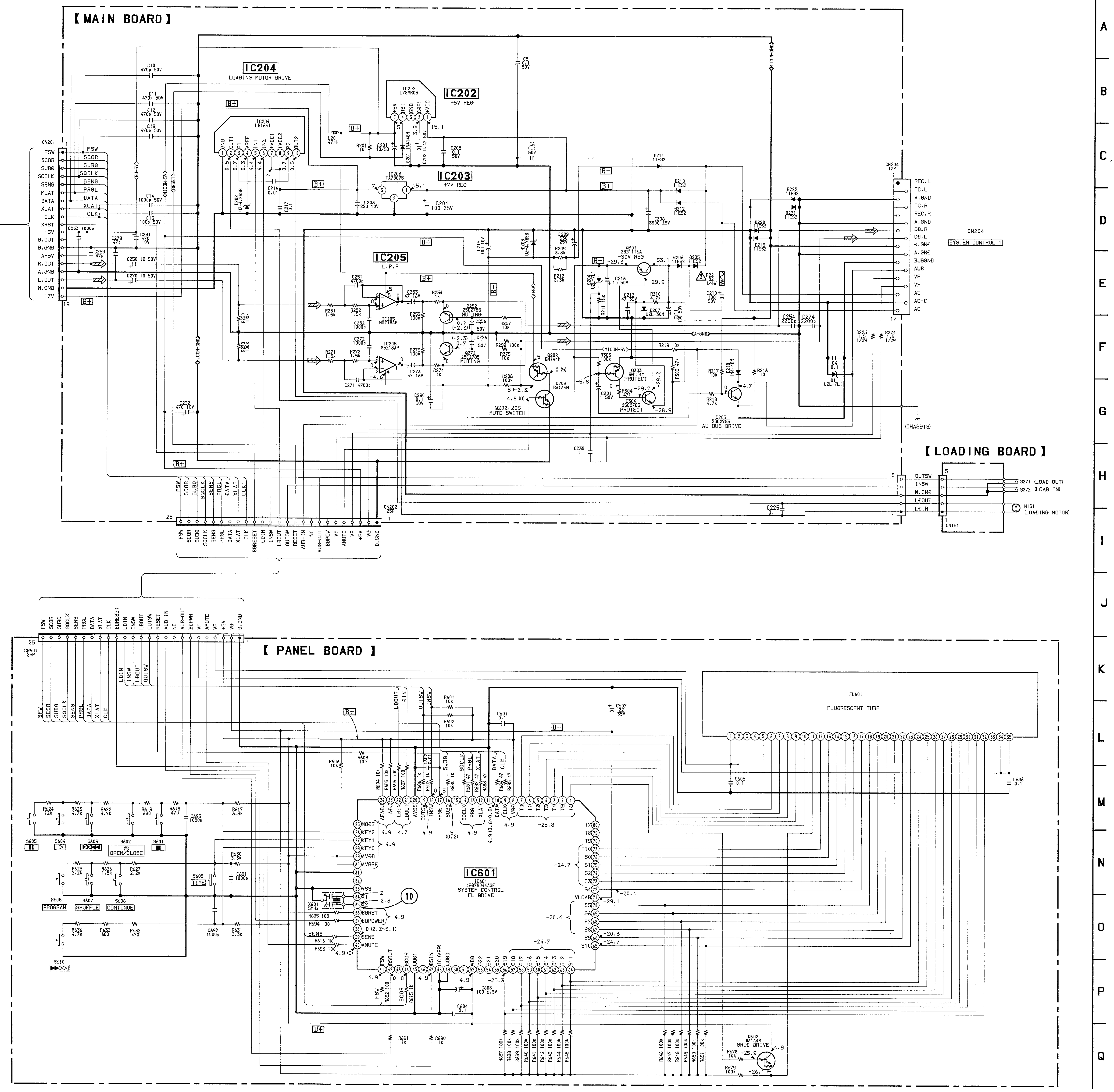
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
A
B
C
D
E
F
G
H
I
J
K
[BD BOARD] (SIDE A)
[BD BOARD] (SIDE B)
[PANEL BOARD]
[MAIN BOARD]
[LOADING BOARD]
IC103
IC101
IC102
M101 SPINDLE MOTOR
S101 LIMIT
M102 SLED MOTOR
M151 LOADING MOTOR
(OPTICAL PICK-UP BLOCK KSS-213B)
AMS
CONTINUE
OPEN/CLOSE
SHUFFLE
PROGRAM
TIME
CN204
SYSTEM CONTROL 1
(CHASSIS)
1-654-671-
1-655-033-
1-655-032-
1-645-721-
21 (21)
11 (21)
12 (12)

4-3. SCHEMATIC DIAGRAM

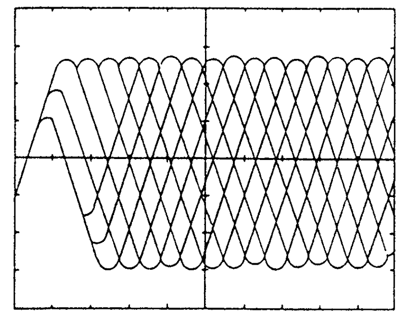
- See page 18 for IC Block Diagrams.
- See page 20 for IC Pin Functions. (IC601)


【 BD BOARD 】
OPTICAL PICK UP BLOCK KSS-215B
TRACKING COIL
FOCUS COIL
Q101,102 LD DRIVE
FOCUS BIAS
IC101 CXA1782BQ FOCUS/TRACKING/SLED SERVO RF AMP
TRACKING GAIN
FOCUS GAIN
S101 LIMIT SW
Q103 FOCUS SWITCH
M101 SPINDLE MOTOR
M102 SLED MOTOR
IC102 BA6397FP FOCUS/TRACKING COIL DRIVE SPINDLE/SLED MOTOR DRIVE
IC103 CXD2507AQ DIGITAL SIGNAL PROCESSOR
IC104 D/A CONVERTER DIGITAL FILTER ANALOG AMP
CN102 21P

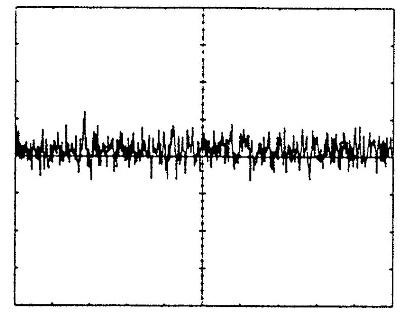

【 MAIN BOARD 】
CN201
IC204 LOADING MOTOR DRIVE
IC202 +5V REG
IC203 +7V REG
IC205 L.P.F
Q202,203 MUTE SWITCH
Q206 PROTECT
AU BUS DRIVE
CN204 SYSTEM CONTROL
CN202 25P
【 LOADING BOARD 】
S271 LOAD OUT
S272 LOAD IN
M151 LOADING MOTOR
CN151
【 PANEL BOARD 】
CN601 25P
FL601 FLUORESCENT TUBE
IC601 SYSTEM CONTROL FL DRIVE
PROGRAM
SHUFFLE
CONTINUE
OPEN/CLOSE
TIME
Q602 BATTERY GRID DRIVE

- **Waveforms**

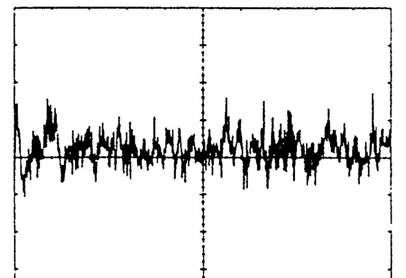
❶ IC101 ㉛ pin 1.4Vp-p



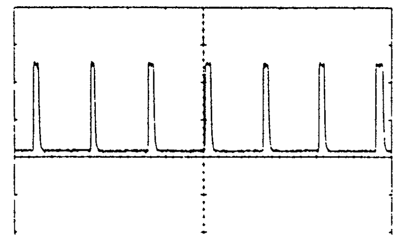
❷ IC101 ㊹ pin 8mVp-p 0.2ms/DIV



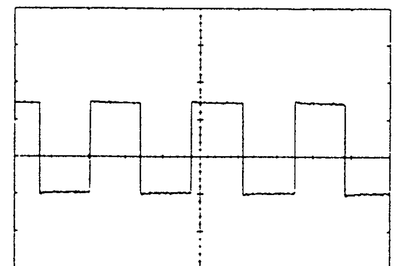
❸ IC101 ② pin 20mVp-p 2ms/DIV



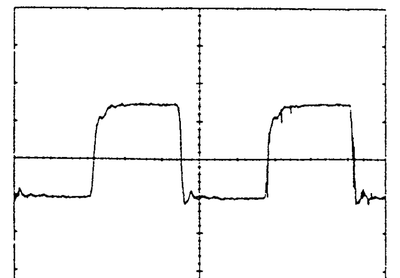
❹ IC103 ③ pin 2.4Vp-p 7.5µsec



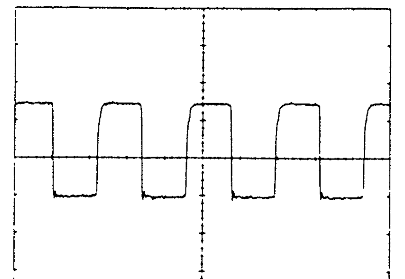
❺ IC103 ㉘ pin 5.1mVp-p 137µsec



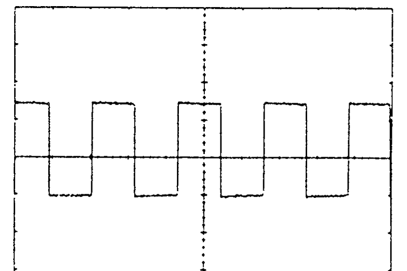
❻ IC103 ㉕ pin 5.1Vp-p 232.7sec



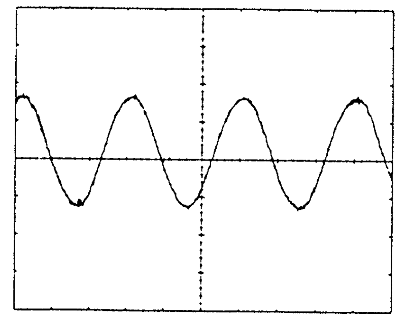
❼ IC103 ㉒ pin 5.1Vp-p 472.7nsec



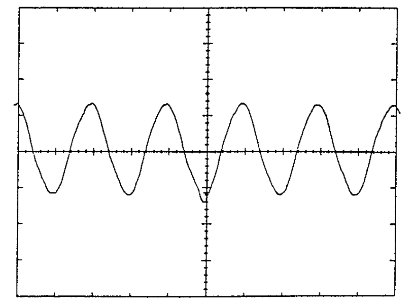
❽ IC103 ⑳ pin 5.1Vp-p 23µsec



❾ IC104 ⑤ pin 3Vp-p 16.9344MHz



❿ IC601 ㉟ pin 4.8Vp-p 5MHz



NOTE

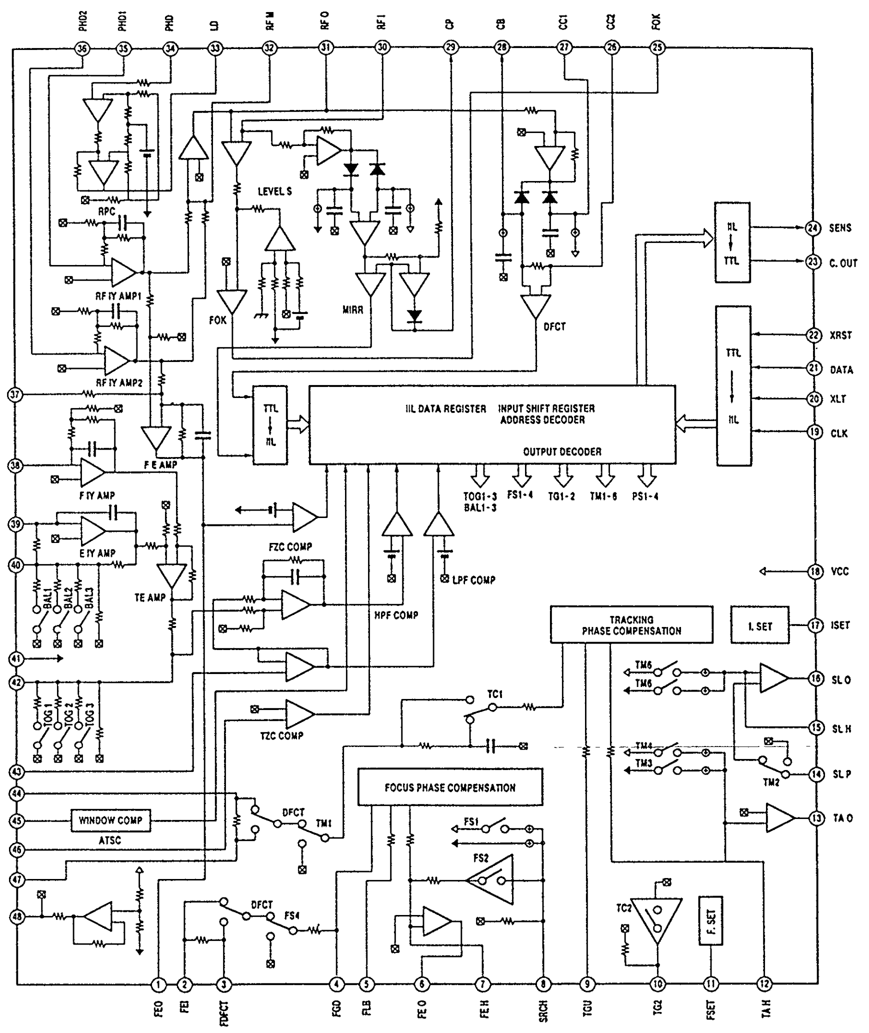
- All capacitors are in µF unless otherwise noted.pF:µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- —⁄\/\/\— :fusible resistor.

Note:The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- B+ :B+ Line.
- B- :B- Line.
- ☐ :adjustment for repair
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark: STOP
  ( ) : PLAY
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ :CD

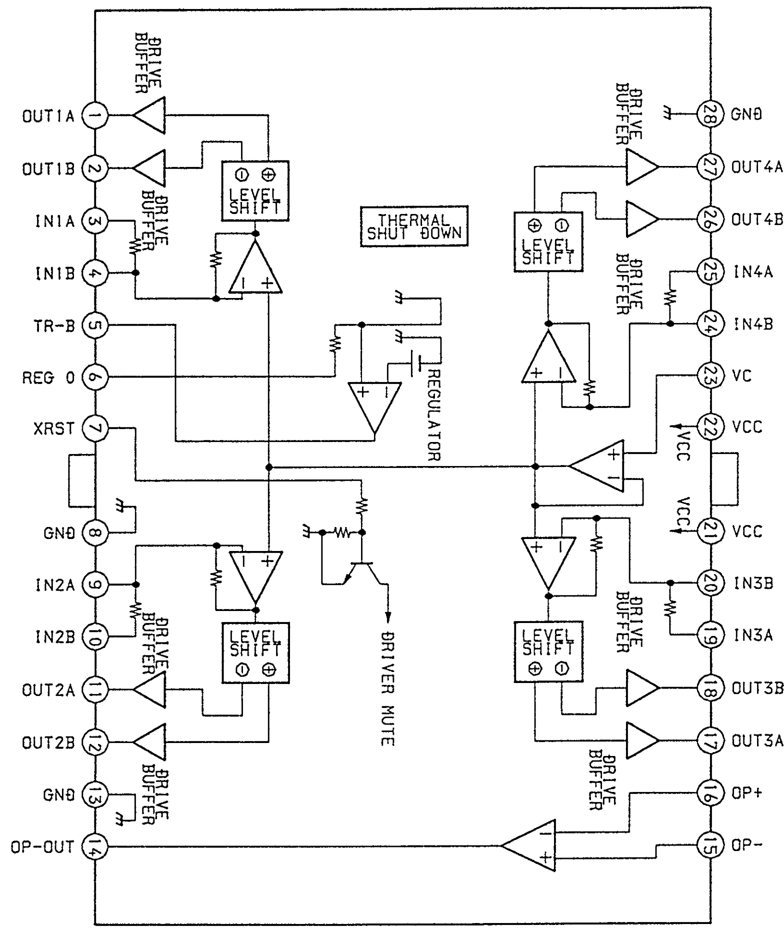
4-4. IC BLOCK DIAGRAMS

IC101 CXA1782BQ



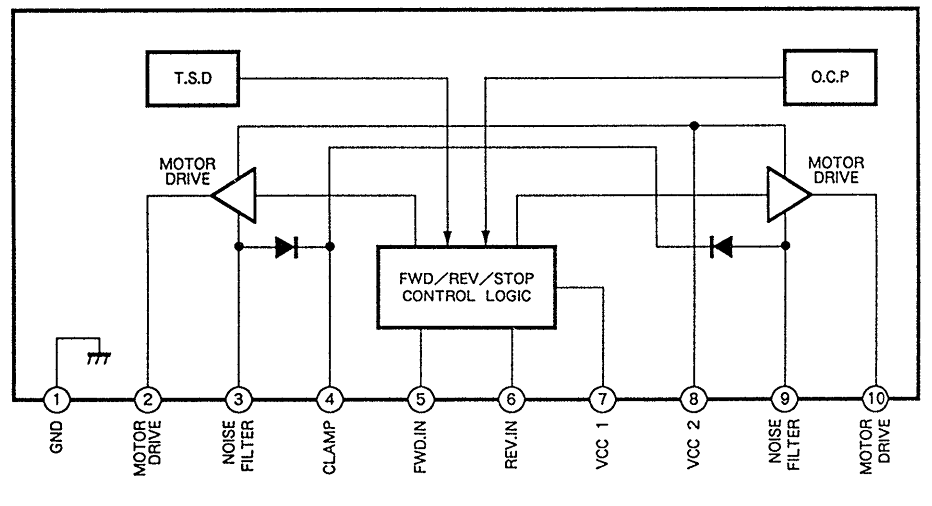
FE BIAS
F
E
EI
VEE
TEO
LPFI
TEI
ATSC
TZC
TDFCT
VC
SENS
C.OUT
XRST
DATA
XLT
CLK
VCC
ISET
SL O
SL M
SL P
TA O
IIL DATA REGISTER INPUT SHIFT REGISTER ADDRESS DECODER
OUTPUT DECODER
TRACKING PHASE COMPENSATION
FOCUS PHASE COMPENSATION
WINDOW COMP
ISET
RF I/V AMP1
RF I/V AMP2
FE AMP
TE AMP
TTL
IIL

IC102 BA6397FP



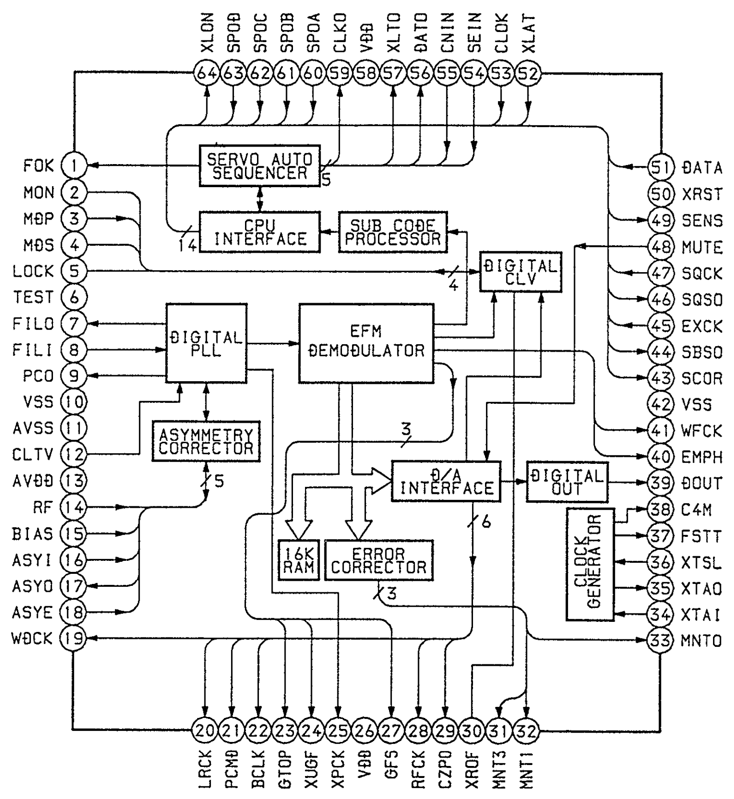
OUT1A
OUT1B
IN1A
IN1B
TR-B
REG O
XRST
GND
IN2A
IN2B
OUT2A
OUT2B
GND
OP-OUT
GND
OUT4A
OUT4B
IN4A
IN4B
VC
VCC
VCC
IN3B
IN3A
OUT3B
OUT3A
OP+
OP-
DRIVE BUFFER
LEVEL SHIFT
THERMAL SHUT DOWN
REGULATOR
DRIVER MUTE
VCC

IC204 LB1641



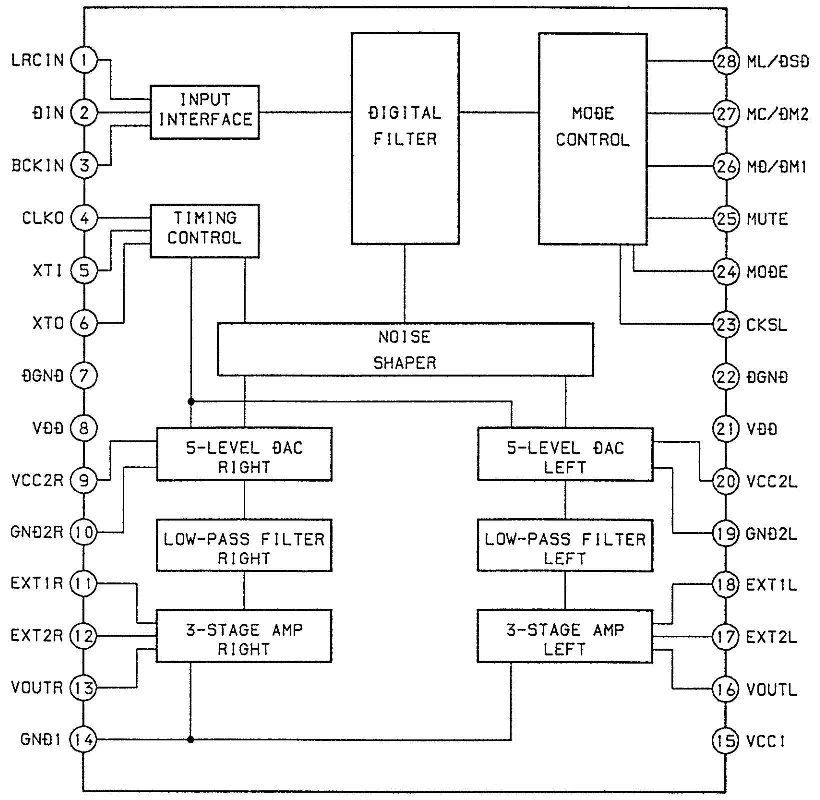
T.S.D
O.C.P
MOTOR DRIVE
MOTOR DRIVE
FWD/REV/STOP CONTROL LOGIC
GND
MOTOR DRIVE
NOISE FILTER
CLAMP
FWDJN
REVJN
VCC 1
VCC 2
NOISE FILTER
MOTOR DRIVE

IC103 CXD2507AQ



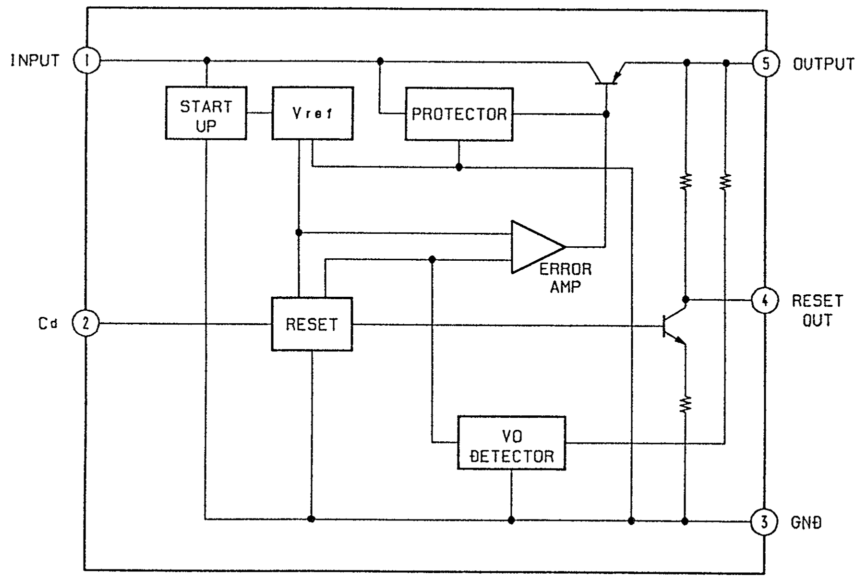
XLON
SPOD
SPOC
SPOB
SPOA
CLKO
VDD
XLTO
DATO
CNIN
SEIN
CLOK
XLAT
FOK
MON
MDP
MDS
LOCK
TEST
FILO
FILI
PCO
VSS
AVSS
CLTV
AVDD
RF
BIAS
ASYI
ASYO
ASYE
WDCK
DATA
XRST
SENS
MUTE
SQCK
SQSO
EXCK
SBSO
SCOR
VSS
WFCK
EMPH
DOUT
C4M
FSTT
XTSL
XTAO
XTAI
MNTO
LRCK
PCMD
BCLK
GTOP
XUGF
XPCK
VDD
GFS
RFCK
C2PO
XROF
MNT3
MNT1
SERVO AUTO SEQUENCER
CPU INTERFACE
SUB CODE PROCESSOR
DIGITAL CLV
DIGITAL PLL
EFM DEMODULATOR
ASYMMETRY CORRECTOR
D/A INTERFACE
DIGITAL OUT
16K RAM
ERROR CORRECTOR
CLOCK GENERATOR

IC104 PCM1710U



LRCIN
DIN
BCKIN
CLKO
XTI
XTO
DGND
VDD
VCC2R
GND2R
EXT1R
EXT2R
VOUTR
GND1
ML/DSD
MC/DM2
MD/DM1
MUTE
MODE
CKSL
DGND
VDD
VCC2L
GND2L
EXT1L
EXT2L
VOUTL
VCC1
INPUT INTERFACE
TIMING CONTROL
DIGITAL FILTER
MODE CONTROL
NOISE SHAPER
5-LEVEL DAC RIGHT
5-LEVEL DAC LEFT
LOW-PASS FILTER RIGHT
LOW-PASS FILTER LEFT
3-STAGE AMP RIGHT
3-STAGE AMP LEFT

IC202 L78MR05



INPUT
Cd
OUTPUT
RESET OUT
GND
START UP
Vref
PROTECTOR
ERROR AMP
RESET
VD DETECTOR

4-5. IC PIN FUNCTION

- **IC601 SYSTEM CONTROL, FL DRIVER (µPD78044AGF)**

Pin No.	Pin Name	I/O	Function
1	T6	O	FL display grid output
2	T5	O	
3	T4	O	
4	T3	O	
5	T2	O	
6	T1	O	
7	T0	O	
8	VDD	–	+5V power supply
9	CLK	O	Serial clock output to DSP (CXD-2507AQ)
10	DATA	O	Serial data output to DSP (CXD-2507AQ)
11	———	–	Fixed at GND
12	XLAT	O	Serial data latch pulse output to DSP (CXD-2507AQ)
13	PRGL	O	Serial data latch pulse output to D/F DAC (PCM-1710U)
14	SQCLK	O	Subcode Q data read clock output to DSP (CXD-2507AQ)
15	———	–	Not used (open)
16	SUBQ	I	Subcode Q data input from DSP (CXD-2507AQ)
17	RESET	I	System reset input ("L"=Active)
18	INSW	I	S292 (loading-in switch) input
19	OUTSW	I	S291 (loading-out switch) input
20	AVss	–	GND
21	LDIN	O	Output for rotating M903 (loading motor) in the loading-in direction
22	LDOUT	O	Output for rotating M903 (loading motor) in the loading-out direction
23	ADJ	I	Test mode input. "L"=Stops GFS check.
24	AFADJ	I	Test mode input. Fixed at "H" ("L":Test mode)
25	MODE	I	Not used (Fixed at "H")
26	KEY2	I	Key AD input
27	KEY1	I	
28	KEY0	I	
29	AVDD	–	+5V power supply
30	AVREF	–	
31	———	–	Fixed at GND
32	———	–	Not used (open)
33	Vss	–	GND
34	X1	I	Clock (5MHz)
35	X2	O	
36	BDRST	O	BD reset output
37	BDPOWER	O	Not used
38	———	–	Not used (open)
39	SENS	I	SENS input from DSP (CXD-2507AQ)
40	AMUTE	O	Muting ON/OFF output
41	FSW	O	
42	BSOUT	O	Audio bus output
43	———	–	Not used (open)
44	SCOR	I	Subcode sync S0+S1 detection input
45	JOG1	I	JOG input
46	———	–	Not used (open)
47	BSIN	I	Audio bus input
48	IC (VPP)	–	Connect to GND
49	JOG0	I	JOG input
50	———	–	Not used (open)
51	———	–	
52	VDD	–	+5V power supply
53	S22	–	Not used (open)
54	S21	–	
55	S20	–	
56	S19	O	FL display segment output
57	S18	O	
58	S17	O	
59	S16	O	
60	S15	O	
61	S14	O	
62	S13	O	
63	S12	O	
64	S11	O	
65	S10	O	
66	S9	O	
67	S8	O	
68	S7	O	
69	S6	O	
70	S5	O	
71	VLOAD	–	–30V power supply for driving FL display
72	S4	O	FL display segment output
73	S3	O	
74	S2	O	
75	S1	O	
76	S0	O	
77	T10	O	FL display grid output
78	T9	O	
79	T8	O	
80	T7	O	

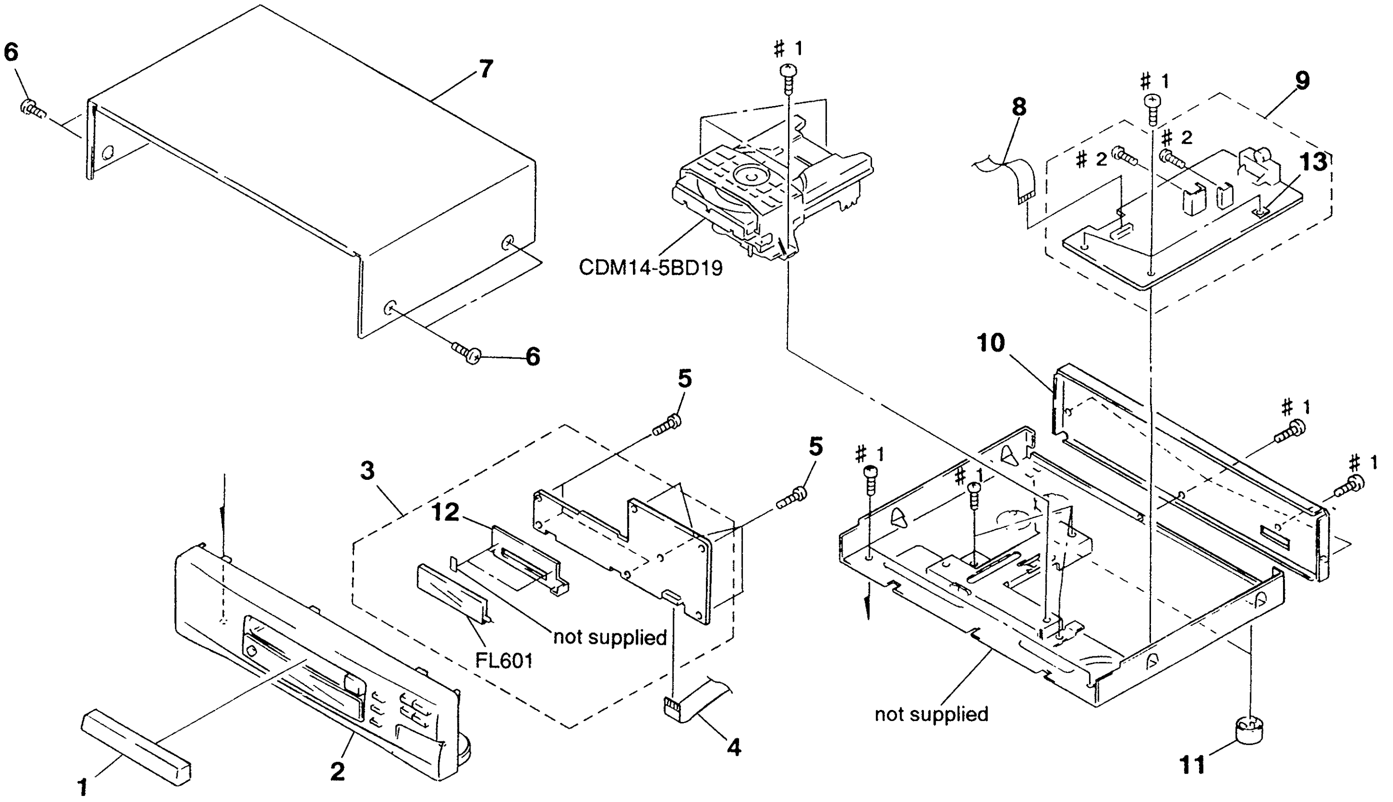
SECTION 5
EXPLODED VIEWS

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  G : German model
  IT : Italian model
  EE : East European model

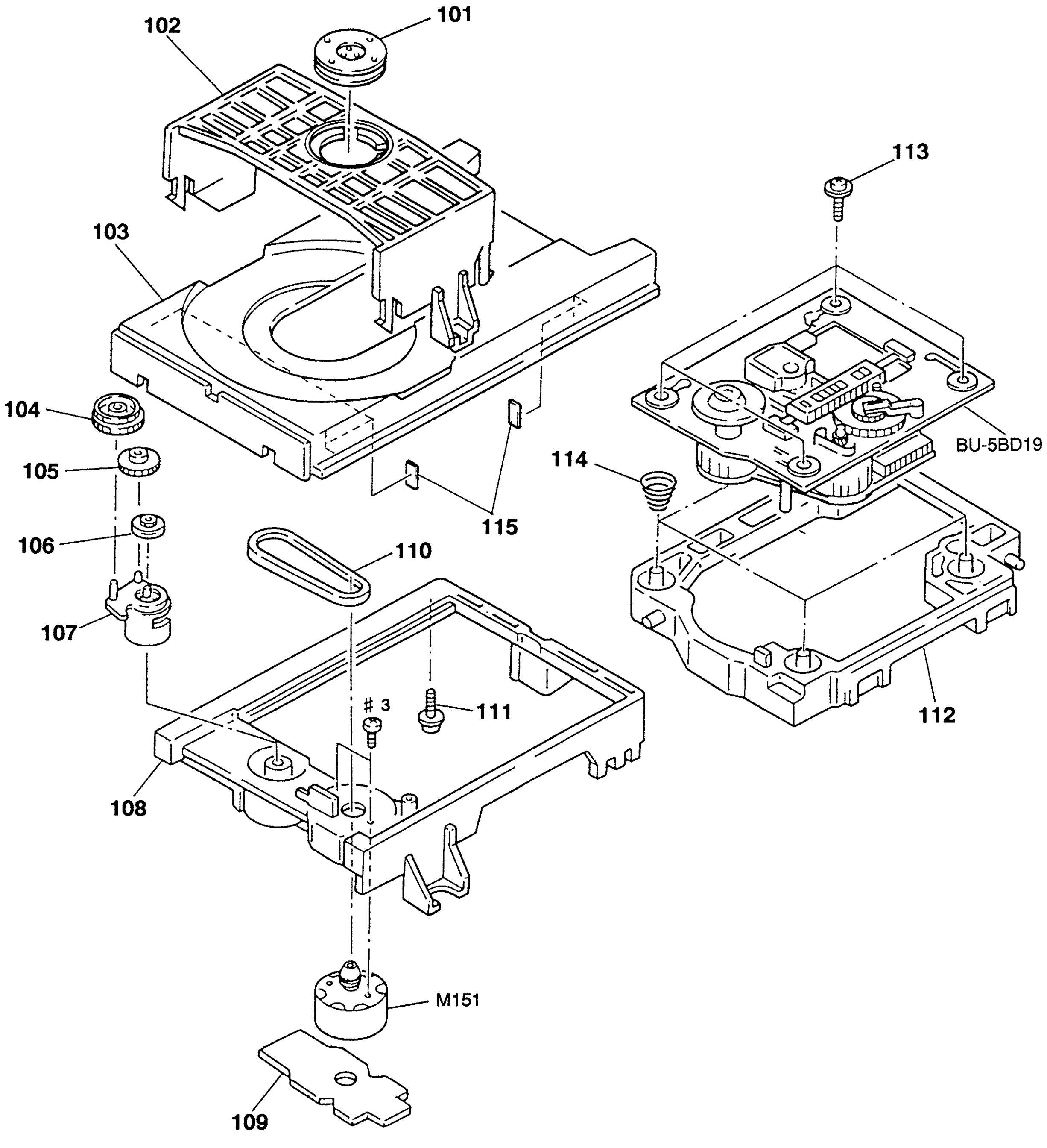
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

5-1. CASE AND FRONT PANEL SECTION



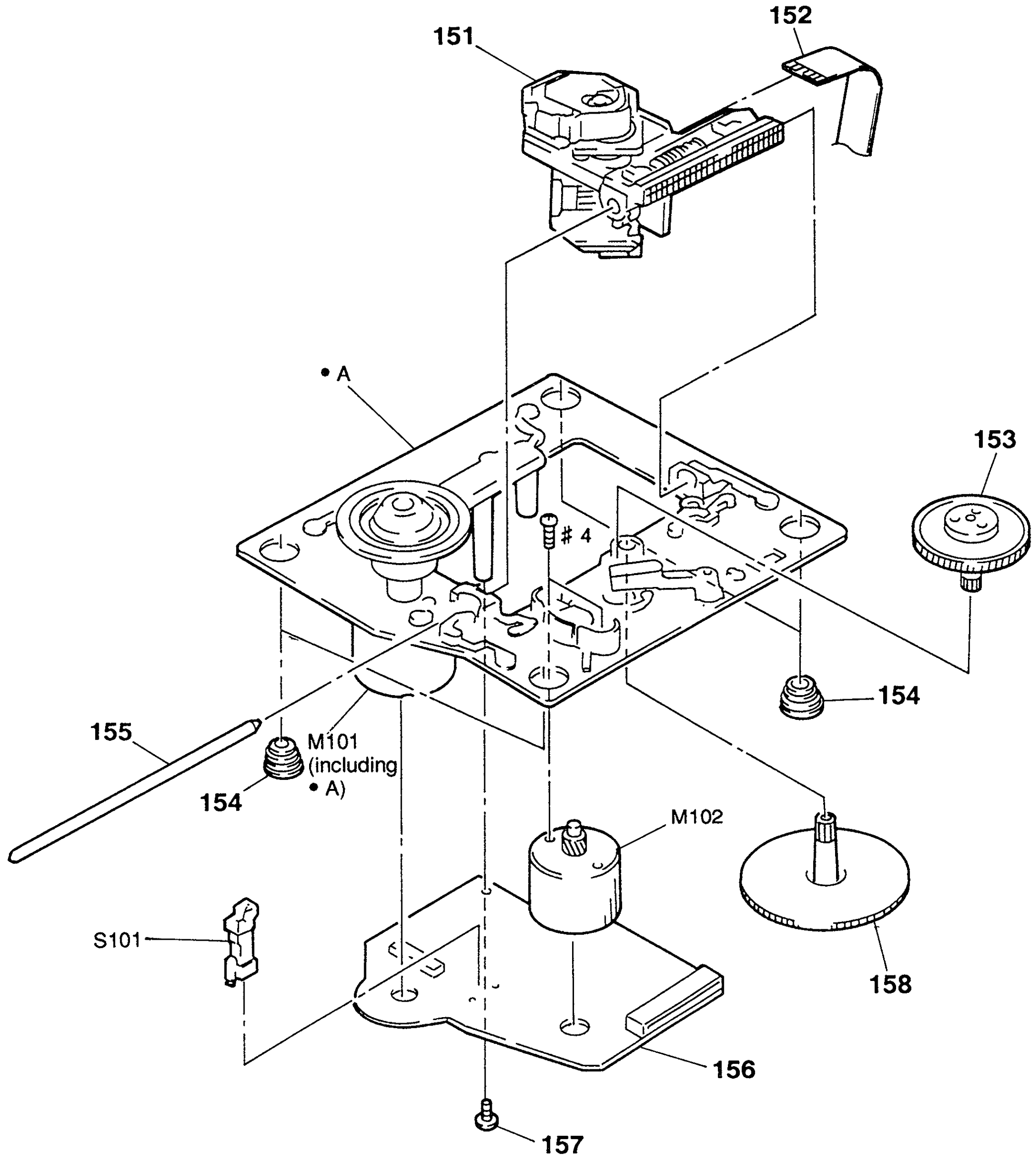
Ref. No.	Part No.	Description	Remark
1	4-969-722-01	PANEL, LOADING	
2	X-4945-608-1	PANEL ASSY, FRONT	
* 3	A-4673-421-A	PANEL BOARD, COMPLETE	
4	1-769-295-11	WIRE (FLAT TYPE) (25 CORE)	
5	4-951-620-01	SCREW (2.6X8), +BVTP	
6	3-363-099-01	SCREW (CASE 3 TP2)	
7	4-969-777-11	CASE	
8	1-769-316-11	WIRE (FLAT TYPE) (19 CORE)	
* 9	A-4673-420-A	MAIN BOARD, COMPLETE	
* 10	4-969-793-01	PANEL, BACK (AEP, UK, G, IT)	
* 10	4-969-793-11	PANEL, BACK (EE, CIS)	
11	X-4941-228-1	FOOT ASSY	
* 12	4-955-816-01	HOLDER (1F), FL TUBE	
13	1-537-770-11	TERMINAL BOARD, GROUND	
FL601	1-517-297-11	INDICATOR TUBE, FLUORESCENT	

5-2. CD MECHANISM SECTION (CDM14-5BD19)


101
102
103
104
105
106
107
108
109
110
111
# 3
112
113
114
115
BU-5BD19
M151

Ref. No.	Part No.	Description	Remark
101	1-452-538-11	MAGNET	
102	4-933-110-41	HOLDER (MG)	
103	4-933-112-01	TABLE, DISK	
104	4-933-107-11	GEAR (PL)	
105	4-967-268-01	GEAR (C)	
106	4-927-651-01	PULLEY (S)	
107	4-933-109-01	CAM	
108	4-933-111-01	CHASSIS (MD)	
109	1-645-721-11	LOADING BOARD	
110	4-927-649-01	BELT	
111	4-917-583-21	BRACKET, YOKE	
112	4-933-129-01	HOLDER (BU)	
113	4-933-134-01	SCREW (+PTPWH M2.6X6)	
114	4-959-996-01	SPRING (932), COMPRESSION	
* 115	4-925-315-41	DAMPER	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING MOTOR)	

5-3. BASE UNIT SECTION (BU-5BD19)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
⚠151	8-848-387-01	OPTICAL PICK-UP BLOCK KSS-213BA/S-N	
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
153	4-917-567-21	GEAR (M)	
154	4-951-940-01	INSULATOR (BU)	
155	4-917-565-01	SHAFT, SLED	
* 156	A-4673-402-A	BD BOARD, COMPLETE	
157	4-951-620-01	SCREW (2.6X8), +BVTP	
158	4-917-564-01	GEAR (P), FLATNESS	
M101	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
M102	X-4917-504-1	MOTOR ASSY (SLED MOTOR)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

Ref. No.	Part No.	Description			Remark
*	A-4673-402-A	BD BOARD, COMPLETE ******************			
		< CAPACITOR >			
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V
C102	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C107	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
C111	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C113	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-163-143-00	CERAMIC CHIP	0.0012uF	5%	50V
C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C118	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C120	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C127	1-164-695-11	CERAMIC CHIP	0.0022uF	5%	50V
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C131	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C132	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C133	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C134	1-164-346-11	CERAMIC CHIP	1uF		16V
C135	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C136	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C137	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C139	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C140	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C141	1-163-038-91	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C142	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C146	1-135-201-11	TANTALUM CHIP	10uF	20%	4V
C147	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C148	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C149	1-164-346-11	CERAMIC CHIP	1uF		16V
C153	1-135-259-11	TANTAL. CHIP	10uF	20%	6.3V
C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		< CONNECTOR >			
CNU101	1-770-014-11	CONNECTOR, FFC/FPC 16P			
CNU102	1-770-013-11	CONNECTOR, FFC/FPC 19P			
		< IC >			
IC101	8-752-069-56	IC	CXA1782BQ		
IC102	8-759-291-06	IC	BA6397FP		
IC103	8-752-372-94	IC	CXD2507AQ		
IC104	8-759-185-29	IC	PCM1710U-B		
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR	MSB710-R		
Q102	8-729-424-08	TRANSISTOR	UN2111		
Q103	8-729-421-22	TRANSISTOR	UN2211		
		< RESISTOR >			
R102	1-216-001-00	METAL CHIP	10	5%	1/10W
R103	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R104	1-216-097-00	METAL CHIP	100K	5%	1/10W
R105	1-216-089-00	METAL CHIP	47K	5%	1/10W
R106	1-216-089-00	METAL CHIP	47K	5%	1/10W
R107	1-216-089-00	METAL CHIP	47K	5%	1/10W
R108	1-216-089-00	METAL CHIP	47K	5%	1/10W
R109	1-216-097-00	METAL CHIP	100K	5%	1/10W
R112	1-216-077-00	METAL CHIP	15K	5%	1/10W
R113	1-216-077-00	METAL CHIP	15K	5%	1/10W
R114	1-216-101-00	METAL CHIP	150K	5%	1/10W
R115	1-216-101-00	METAL CHIP	150K	5%	1/10W
R116	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R117	1-216-093-00	METAL CHIP	68K	5%	1/10W
R118	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R119	1-216-121-00	METAL CHIP	1M	5%	1/10W
R120	1-216-089-00	METAL CHIP	47K	5%	1/10W

Ref.No.	Part No.	Description	Remark
R121	1-216-114-00	METAL GLAZE 510K 5% 1/10W	
R122	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R123	1-216-099-00	METAL CHIP 120K 5% 1/10W	
R124	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R125	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R126	1-216-063-00	METAL CHIP 3.9K 5% 1/10W	
R127	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R128	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R129	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R130	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R131	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R132	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R133	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R134	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R135	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R136	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R137	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R138	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R139	1-216-033-00	METAL CHIP 220 5% 1/10W	
R140	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R141	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R142	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R143	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R144	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R145	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R146	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R147	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R148	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R149	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R150	1-216-037-00	METAL CHIP 330 5% 1/10W	
R151	1-216-037-00	METAL CHIP 330 5% 1/10W	
R152	1-216-037-00	METAL CHIP 330 5% 1/10W	
R153	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R154	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R156	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R157	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R158	1-216-001-00	METAL CHIP 10 5% 1/10W	
		< VARIABLE RESISTOR >	
RV101	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV102	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
RV103	1-241-396-11	RES, ADJ, METAL GLAZE 22K	
		< SWITCH >	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
		< VIBRATOR >	
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)	

****

Ref.No.	Part No.	Description	Remark
	1-645-721-11	LOADING BOARD *************	
		< CONNECTOR >	
* CN151	1-568-943-11	PIN, CONNECTOR 5P	
		< SWITCH >	
S271	1-572-086-11	SWITCH, LEAF (LOAD OUT)	
S272	1-572-086-11	SWITCH, LEAF (LOAD IN)	

****

Ref.No.	Part No.	Description	Remark
*	A-4673-420-A	MAIN BOARD, COMPLETE ********************	
	1-537-770-11	TERMINAL BOARD, GROUND	
	7-682-548-04	SCREW +BVTT 3X8 (S)	
		< CAPACITOR >	
C4	1-164-159-11	CERAMIC 0.1uF 50V	
C5	1-164-159-11	CERAMIC 0.1uF 50V	
C6	1-164-159-11	CERAMIC 0.1uF 50V	
C10	1-162-290-31	CERAMIC 470PF 10% 50V	
C11	1-162-290-31	CERAMIC 470PF 10% 50V	
C12	1-162-290-31	CERAMIC 470PF 10% 50V	
C13	1-162-290-31	CERAMIC 470PF 10% 50V	
C14	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C15	1-162-282-31	CERAMIC 100PF 10% 50V	
C201	1-124-907-11	ELECT 10uF 20% 50V	
C202	1-124-902-00	ELECT 0.47uF 20% 50V	
C203	1-126-176-11	ELECT 220uF 20% 10V	
C204	1-124-478-11	ELECT 100uF 20% 25V	
C205	1-164-159-11	CERAMIC 0.1uF 50V	
C208	1-124-636-00	ELECT 3300uF 20% 25V	
C209	1-124-479-11	ELECT 330uF 20% 25V	
C210	1-124-122-11	ELECT 100uF 20% 50V	
C211	1-124-122-11	ELECT 100uF 20% 50V	
C212	1-124-910-11	ELECT 47uF 20% 50V	
C213	1-124-907-11	ELECT 10uF 20% 50V	
C215	1-124-443-00	ELECT 100uF 20% 10V	
C216	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C217	1-164-159-11	CERAMIC 0.1uF 50V	
C225	1-164-159-11	CERAMIC 0.1uF 50V	
C230	1-136-177-00	FILM 1uF 5% 50V	
C231	1-124-472-11	ELECT 470uF 20% 10V	
C232	1-124-472-11	ELECT 470uF 20% 10V	
C233	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C250	1-124-907-11	ELECT 10uF 20% 50V	
C251	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C252	1-130-471-00	MYLAR 0.001uF 5% 50V	
C253	1-124-477-11	ELECT 47uF 20% 25V	

Ref. No.	Part No.	Description	Remark
C254	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
C256	1-124-903-11	ELECT 1uF 20% 50V	
C259	1-162-215-31	CERAMIC 47PF 5% 50V	
C270	1-124-907-11	ELECT 10uF 20% 50V	
C271	1-130-479-00	MYLAR 0.0047uF 5% 50V	
C272	1-130-471-00	MYLAR 0.001uF 5% 50V	
C273	1-124-477-11	ELECT 47uF 20% 25V	
C274	1-162-302-11	CERAMIC 0.0022uF 20% 16V	
C276	1-124-903-11	ELECT 1uF 20% 50V	
C279	1-162-215-31	CERAMIC 47PF 5% 50V	
C290	1-124-463-00	ELECT 0.1uF 20% 50V	
C301	1-124-903-11	ELECT 1uF 20% 50V	
		< CONNECTOR >	
CN201	1-770-067-11	CONNECTOR, FFC/FPC 19P	
* CN202	1-568-867-11	SOCKET, CONNECTOR 25P	
CN204	1-764-017-11	HOUSING, CONNECTOR (PC BOARD) 17P (SYSTEM CONTROL 1)	
		< DIODE >	
D1	8-719-000-75	DIODE UZL-7L1	
D201	8-719-987-63	DIODE 1N4148M	
D202	8-719-010-33	DIODE UZ-4.7BSB	
D204	8-719-000-75	DIODE UZL-7L1	
D205	8-719-024-99	DIODE 11ES2-NTA2B	
D206	8-719-024-99	DIODE 11ES2-NTA2B	
D207	8-719-934-22	DIODE HZS30-2L	
D208	8-719-010-33	DIODE UZ-4.7BSB	
D210	8-719-024-99	DIODE 11ES2-NTA2B	
D211	8-719-024-99	DIODE 11ES2-NTA2B	
D212	8-719-024-99	DIODE 11ES2-NTA2B	
D218	8-719-987-63	DIODE 1N4148M	
D219	8-719-024-99	DIODE 11ES2-NTA2B	
D220	8-719-024-99	DIODE 11ES2-NTA2B	
D221	8-719-024-99	DIODE 11ES2-NTA2B	
D222	8-719-024-99	DIODE 11ES2-NTA2B	
		< IC >	
IC202	8-759-820-84	IC L78MR05	
IC203	8-759-071-48	IC TA7807S	
IC204	8-759-822-09	IC LB1641	
IC205	8-759-634-51	IC M5218AP	
		< COIL >	
L201	1-410-517-11	INDUCTOR 47uH	
		< TRANSISTOR >	
Q202	8-729-422-57	TRANSISTOR UN4111	
Q203	8-729-900-80	TRANSISTOR DTC114ES	
Q205	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q252	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q272	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q301	8-729-140-04	TRANSISTOR 2SB1116A-L	
Q303	8-729-900-63	TRANSISTOR DTA124ES	
Q304	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
R201	1-249-417-11	CARBON 1K 5% 1/4W	
R208	1-249-441-11	CARBON 100K 5% 1/4W	
R209	1-249-423-11	CARBON 3.3K 5% 1/4W	
R210	1-249-425-11	CARBON 4.7K 5% 1/4W	
R211	1-249-431-11	CARBON 15K 5% 1/4W	
R212	1-249-423-11	CARBON 3.3K 5% 1/4W	
R216	1-249-393-11	CARBON 10 5% 1/4W	
R217	1-249-429-11	CARBON 10K 5% 1/4W	
R218	1-249-425-11	CARBON 4.7K 5% 1/4W	
R219	1-249-429-11	CARBON 10K 5% 1/4W	
⚠R221	1-212-879-11	FUSIBLE 82 5% 1/4W	F
R224	1-260-294-11	CARBON 1.5 5% 1/2W	
R225	1-260-294-11	CARBON 1.5 5% 1/2W	
R250	1-249-441-11	CARBON 100K 5% 1/4W	
R251	1-249-419-11	CARBON 1.5K 5% 1/4W	
R252	1-249-419-11	CARBON 1.5K 5% 1/4W	
R253	1-249-441-11	CARBON 100K 5% 1/4W	
R254	1-249-417-11	CARBON 1K 5% 1/4W	
R257	1-249-429-11	CARBON 10K 5% 1/4W	
R270	1-249-441-11	CARBON 100K 5% 1/4W	
R271	1-249-419-11	CARBON 1.5K 5% 1/4W	
R272	1-249-419-11	CARBON 1.5K 5% 1/4W	
R273	1-249-441-11	CARBON 100K 5% 1/4W	
R274	1-249-417-11	CARBON 1K 5% 1/4W	
R275	1-249-429-11	CARBON 10K 5% 1/4W	
R299	1-249-441-11	CARBON 100K 5% 1/4W	
R303	1-249-441-11	CARBON 100K 5% 1/4W	
R304	1-249-437-11	CARBON 47K 5% 1/4W	
R305	1-249-437-11	CARBON 47K 5% 1/4W	

****

Ref. No.	Part No.	Description	Remark
*	A-4673-421-A	PANEL BOARD, COMPLETE ********************	
*	4-955-816-01	HOLDER (1F), FL TUBE	
		< CAPACITOR >	
C601	1-164-159-11	CERAMIC 0.1uF 50V	
C602	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C604	1-164-159-11	CERAMIC 0.1uF 50V	
C605	1-164-159-11	CERAMIC 0.1uF 50V	
C606	1-164-159-11	CERAMIC 0.1uF 50V	
C607	1-124-916-11	ELECT 22uF 20% 63V	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

PANEL

Ref. No.	Part No.	Description	Remark
C608	1-126-177-11	ELECT 100uF 20% 10V	
C691	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C692	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C693	1-162-294-31	CERAMIC 0.001uF 10% 50V	
		< CONNECTOR >	
* CN601	1-568-841-11	SOCKET, CONNECTOR 25P	
		< FLUORESCENT INDICATOR >	
FL601	1-517-297-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-325-64	IC uPD78044AGF-055-3B9	
		< TRANSISTOR >	
Q602	8-729-900-80	TRANSISTOR DTC114ES	
		< RESISTOR >	
R601	1-249-429-11	CARBON 10K 5% 1/4W	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
R603	1-249-429-11	CARBON 10K 5% 1/4W	
R604	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-429-11	CARBON 10K 5% 1/4W	
R606	1-249-417-11	CARBON 1K 5% 1/4W	
R607	1-249-417-11	CARBON 1K 5% 1/4W	
R608	1-247-807-31	CARBON 100 5% 1/4W	
R615	1-249-417-11	CARBON 1K 5% 1/4W	
R616	1-249-417-11	CARBON 1K 5% 1/4W	
R617	1-249-423-11	CARBON 3.3K 5% 1/4W	
R618	1-249-413-11	CARBON 470 5% 1/4W	
R619	1-249-415-11	CARBON 680 5% 1/4W	
R622	1-249-425-11	CARBON 4.7K 5% 1/4W	
R623	1-249-425-11	CARBON 4.7K 5% 1/4W	
R624	1-249-430-11	CARBON 12K 5% 1/4W	
R625	1-249-421-11	CARBON 2.2K 5% 1/4W	
R626	1-249-419-11	CARBON 1.5K 5% 1/4W	
R627	1-249-421-11	CARBON 2.2K 5% 1/4W	
R630	1-249-423-11	CARBON 3.3K 5% 1/4W	
R631	1-249-423-11	CARBON 3.3K 5% 1/4W	
R632	1-249-413-11	CARBON 470 5% 1/4W	
R633	1-249-415-11	CARBON 680 5% 1/4W	
R636	1-249-425-11	CARBON 4.7K 5% 1/4W	
R637	1-249-441-11	CARBON 100K 5% 1/4W	
R638	1-249-441-11	CARBON 100K 5% 1/4W	
R639	1-249-441-11	CARBON 100K 5% 1/4W	
R640	1-249-441-11	CARBON 100K 5% 1/4W	
R641	1-249-441-11	CARBON 100K 5% 1/4W	
R642	1-249-441-11	CARBON 100K 5% 1/4W	
R643	1-249-441-11	CARBON 100K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R644	1-249-441-11	CARBON 100K 5% 1/4W	
R645	1-249-441-11	CARBON 100K 5% 1/4W	
R646	1-249-441-11	CARBON 100K 5% 1/4W	
R647	1-249-441-11	CARBON 100K 5% 1/4W	
R648	1-249-441-11	CARBON 100K 5% 1/4W	
R649	1-249-441-11	CARBON 100K 5% 1/4W	
R650	1-249-441-11	CARBON 100K 5% 1/4W	
R651	1-249-441-11	CARBON 100K 5% 1/4W	
R678	1-249-429-11	CARBON 10K 5% 1/4W	
R679	1-249-441-11	CARBON 100K 5% 1/4W	
R680	1-249-417-11	CARBON 1K 5% 1/4W	
R681	1-249-401-11	CARBON 47 5% 1/4W	
R682	1-249-401-11	CARBON 47 5% 1/4W	
R683	1-249-401-11	CARBON 47 5% 1/4W	
R684	1-249-401-11	CARBON 47 5% 1/4W	
R685	1-249-401-11	CARBON 47 5% 1/4W	
R690	1-249-417-11	CARBON 1K 5% 1/4W	
R691	1-249-417-11	CARBON 1K 5% 1/4W	
R692	1-247-807-31	CARBON 100 5% 1/4W	
R693	1-247-807-31	CARBON 100 5% 1/4W	
R694	1-247-807-31	CARBON 100 5% 1/4W	
R695	1-247-807-31	CARBON 100 5% 1/4W	
R696	1-247-807-31	CARBON 100 5% 1/4W	
R697	1-247-807-31	CARBON 100 5% 1/4W	
		< SWITCH >	
S601	1-554-303-21	SWITCH, TACTILE (■)	
S602	1-554-303-21	SWITCH, TACTILE (⏏ OPEN/CLOSE)	
S603	1-554-303-21	SWITCH, TACTILE (|◁◁ ◀◀)	
S604	1-554-303-21	SWITCH, TACTILE (▷)	
S605	1-554-303-21	SWITCH, TACTILE (▮▮)	
S606	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S607	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S608	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S609	1-554-303-21	SWITCH, TACTILE (TIME)	
S610	1-554-303-21	SWITCH, TACTILE (▶▶ ▷▷|)	
		< VIBRATOR >	
X601	1-579-233-11	VIBRATOR, CERAMIC (5MHz)	

****

MISCELLANEOUS
****

Ref. No.	Part No.	Description
4	1-769-295-11	WIRE (FLAT TYPE) (25 CORE)
8	1-769-316-11	WIRE (FLAT TYPE) (19 CORE)
101	1-452-538-11	MAGNET
⚠151	8-848-387-01	OPTICAL PICK-UP BLOCK KSS-213BA/S-N
152	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)
FL601	1-517-297-11	INDICATOR TUBE, FLUORESCENT
M101	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
M102	X-4917-504-1	MOTOR ASSY (SLED MOTOR)	
M151	A-4604-363-A	MOTOR (L) ASSY (LOADING MOTOR)	
S101	1-572-085-11	SWITCH, LEAF (LIMIT)	

****

ACCESSORIES & PACKING MATERIALS

****

Ref. No.	Part No.	Description	Remark
*	4-973-307-01	CUSHION (UPPER)	
*	4-973-650-01	CUSHION (LOWER)	

****

****

HARDWARE LIST

****

Ref. No.	Part No.	Description	Remark
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-621-775-10	SCREW +B 2.6X4	
#4	7-621-255-15	SCREW +P 2X3	

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Home A&V Products Div.

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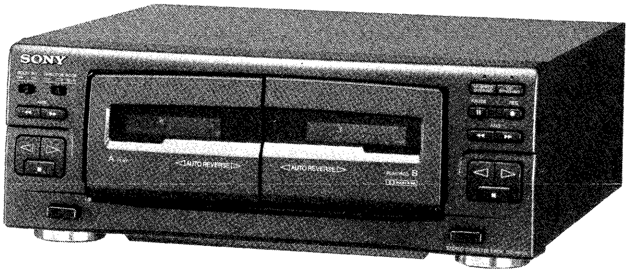
TC-N500

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
PX Model



TC-N500 are the Stereo Cassette Deck section in LBT-N500/N550/N550K/N550P and LBT-N600AV/N650AV.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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Model Name Using Similar Mechanism	HCD-A390
Tape Transport Mechanism Type	DECK A: TCM-190RA12AL DECK B: TCM-190RB53A

SPECIFICATIONS

Recording system
  4-track 2-channel stereo
Frequency response
  DOLBY NR OFF
  With Sony Type II cassette
  40 Hz to 14 kHz (±3dB)
  With Sony Type I cassette
  40 Hz to 13 kHz (±3dB)
Wow and flutter
  0.1% (W.RMS)
  ±0.2% (W.Peak)
Weight Approx. 3.3 kg
Dimensions
  Approx. 355 x 130 x 310 mm
  (w/h/d, including projections)

Design and specifications are subject to change without notice.

STEREO CASSETTE DECK

SONY®

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SERVICING NOTES

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

Notes on chip component replacement

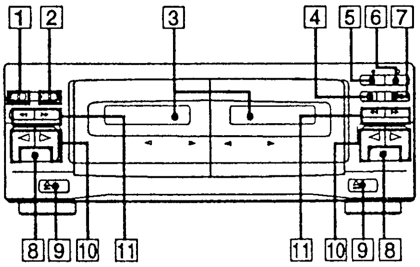
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

- **Power Supply Used Servicing**

  This Unit does not have its own power supply. As it works on the power supplied from the amplifier (STR-N500/N600) used for this series, connect this amplifier when servicing the unit (conduction repair, etc.).

SECTION 1
GENERAL

This section is extracted from LBT-N500 instruction manual.



1 DOLBY NR switch (16)
2 DIRECTION MODE selector (16)
3 Cassette compartments (16)
4 ❚❚ PAUSE button (16)
5 HI-SPEED DUBBING button (20)
6 CD SYNCRO button (17, 19)
7 ● REC button (17)
8 ■ (stop) buttons (16)
9 ≜ EJECT buttons (16)
10 ▷ (front side play)
◁ (reverse side play) buttons (16, 17)
11 ◀◀ (fast leftward) AMS
▶▶ (fast rightward) AMS buttons (16)

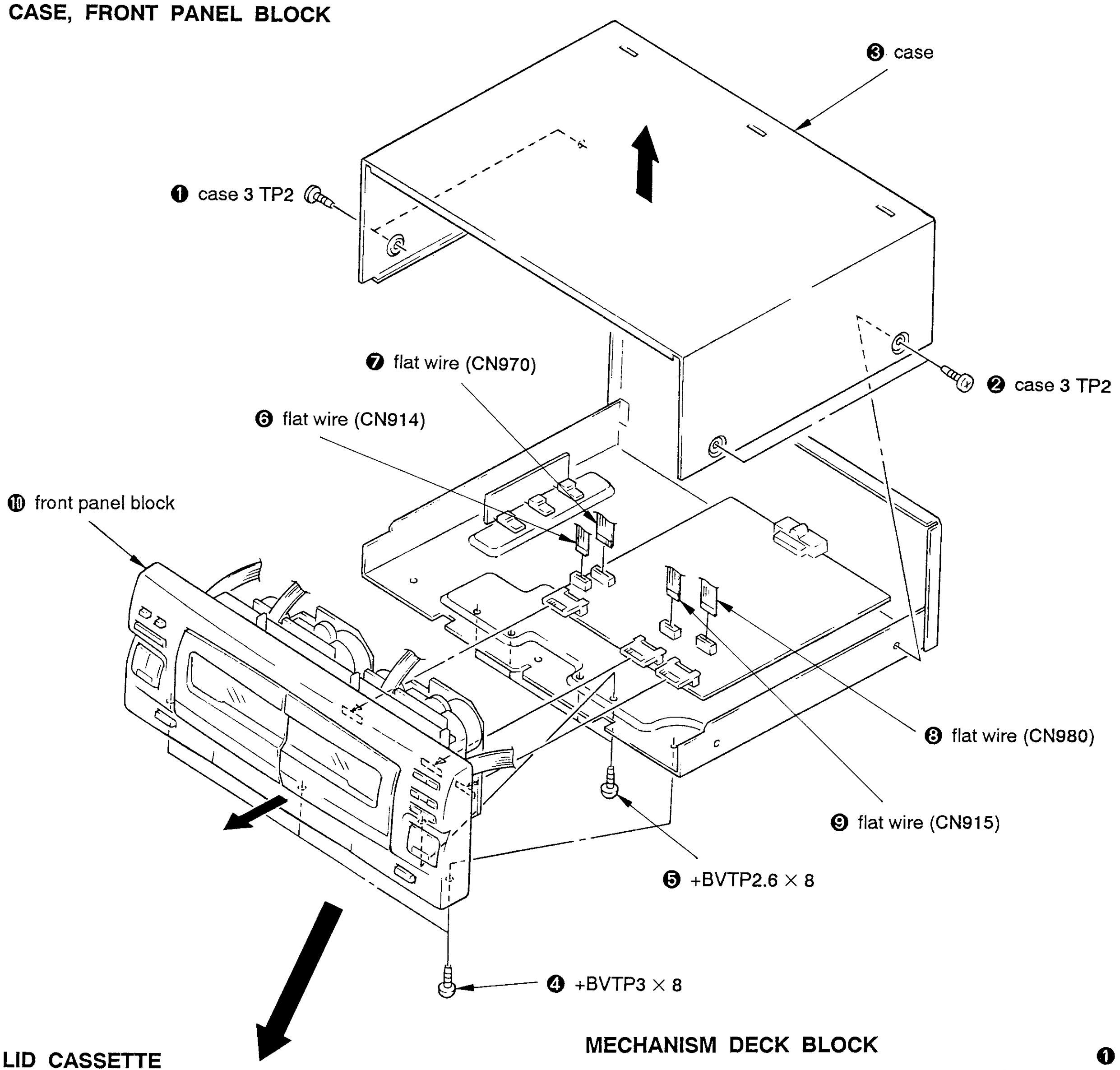
SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

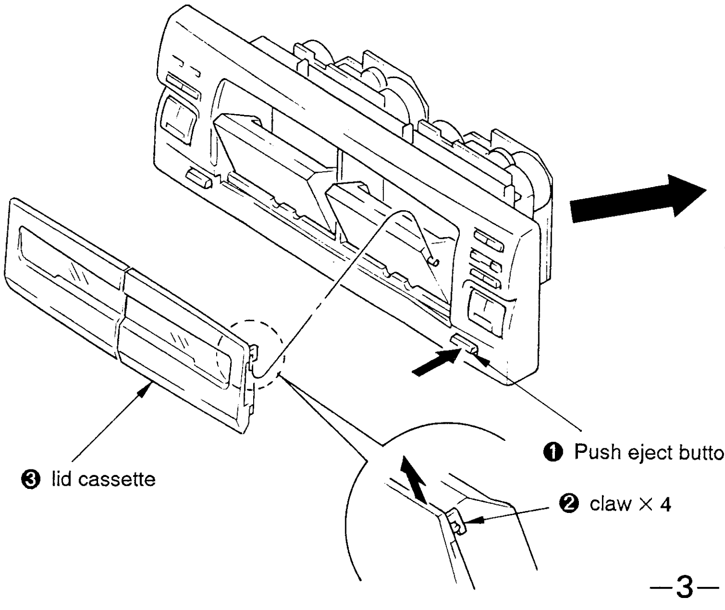
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

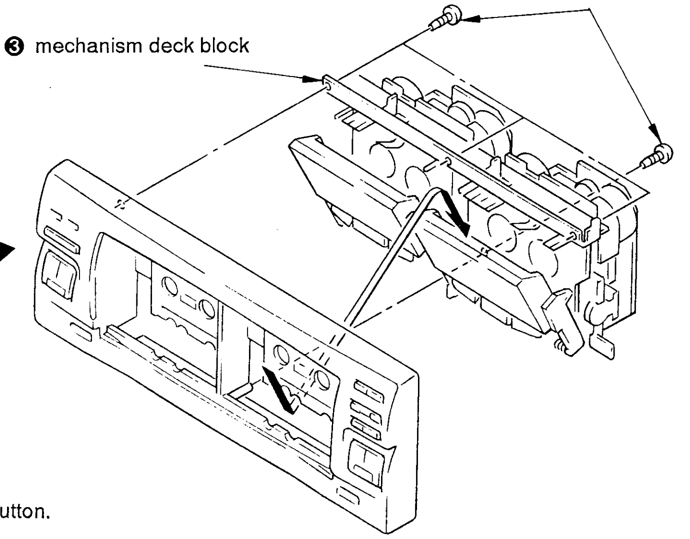
CASE, FRONT PANEL BLOCK


❸ case
❶ case 3 TP2
❷ case 3 TP2
❼ flat wire (CN970)
❻ flat wire (CN914)
❿ front panel block
❽ flat wire (CN980)
❾ flat wire (CN915)
❺ +BVTP2.6 × 8
❹ +BVTP3 × 8

LID CASSETTE


❶ Push eject button.
❷ claw × 4
❸ lid cassette

MECHANISM DECK BLOCK


❶ +BVTP2.6 × 8
❸ mechanism deck block

SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTIONS:

1. Clean the following parts with a denatured-alcoholmoistened swab:

record/playback head	pinch roller
erase head	rubber belts
capstan	idler

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustment.
4. After the adjustment, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

- **Torque Measurement**

Mode	Torque meter	Meter reading	
FWD	CQ-102C	30 to 65 g•cm (0.42 to 0.90 oz•inch)	
FWD Back tension		DECK A	1 to 6 g•cm (0.014 to 0.08 oz•inch)
		DECK B	2 to 9 g•cm (0.028 to 0.124 oz•inch)
REV	CQ-102RC	30 to 65 g•cm (0.42 to 0.90 oz•inch)	
REV Back tension		1 to 6 g•cm (0.014 to 0.08 oz•inch)	
FF, REW	CQ-201B	70 to 120 g•cm (0.98 to 1.66 oz•inch)	

SECTION 4
ELECTRICAL ADJUSTMENTS

1. The adjustment should be performed in the publication.
   (Be sure to make playback adjustment at first.)
2. The adjustment and measurement should be performed for both L-CH and R-CH.
   - Switche position
     DOLBY NR switch : OFF

- **Test Tape**

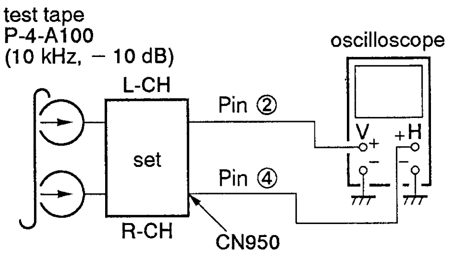
Tape	Contents	Used for
P-4-A100	10 kHz, − 10 dB	Head Azimuth Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment

0 dB = 0.775 V

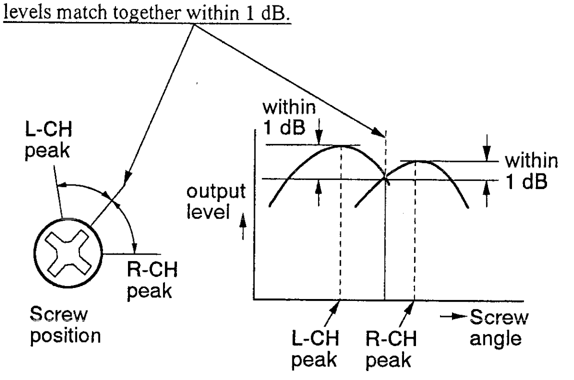
Record/Playback Head Azimuth Adjustment DECK A DECK B

Procedure:

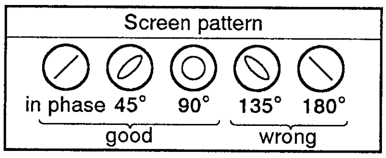
1. FWD/REV: Playback Mode



2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.



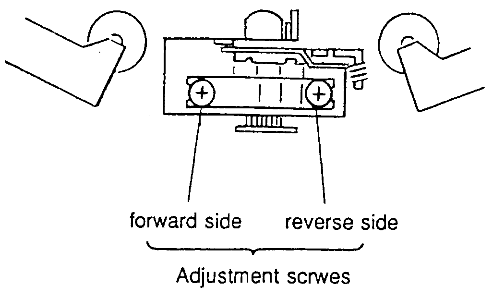
L-CH peak
R-CH peak
Screw position
within 1 dB
output level
within 1 dB
L-CH peak
R-CH peak
Screw angle



Screen pattern
in phase
45°
90°
135°
180°
good
wrong

3. Change the REV playback mode and repeat the step 1 to 2.
4. After the adjustments, lock the adjustment screw with suitable locking compound.

Adjustment Location:

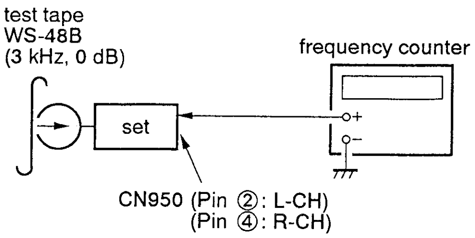


forward side
reverse side
Adjustment scrwes

Tape Speed Adjustment DECK A DECK B

Procedure:

- Perform high speed adjustment before normal speed adjustment.
  Mode: playback



test tape
WS-48B
(3 kHz, 0 dB)
frequency counter
set
+
−
CN950 (Pin ②: L-CH)
(Pin ④: R-CH)

(High Speed Adjustment)

1. Short-circuit CN902 (TC board) when the power off.
2. Turn on the power, press the DUB switch, and set high speed playback.
3. Set decks A and B into the FWD mode.
4. Adjust deck A: RV72A (H) and deck B: RV72B (H) so that the reading of the frequency counter becomes the adjustment value.
5. After adjusting, short-circuit CN902.

(Normal Speed Adjustment)

1. Set the FWD playback mode.
2. Adjust deck A: RV71A (N), deck B: RV71B (N) so that the reading of the frequency counter becomes the adjustment value.

Adjustment Values:

High Speed	6,000 ± 20 Hz
Normal Speed	3,000 ± 10 Hz

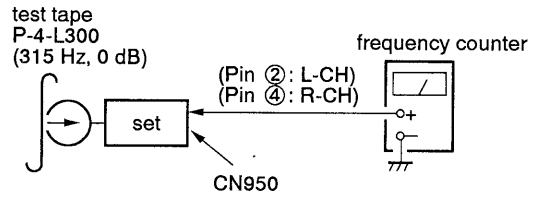
Adjust so that the difference between tape top and tape end is within 3%.
Adjust so that the deviation between the speeds of deck A and deck B at the tape top is within 1.0%.

Adjustment Location: AUDIO (A), (B) boards

Playback Level Adjustment DECK A DECK B

Procedure:

Mode: playback



test tape
P-4-L300
(315 Hz, 0 dB)
frequency counter
(Pin ②: L-CH)
(Pin ④: R-CH)
set
+
−
CN950

Adjust deck A: RV11A (L-CH) and RV21A (R-CH), deck B: RV11B (L-CH) and RV21B (R-CH) so that within the adjustment values specified. The output level is within the adjustment values specified.

Adjustable Level:

CN950 level: − 7.7 dB ± 0.5 dB (0.30 to 0.34 V)
Level Difference between Channels: within 1.0 dB

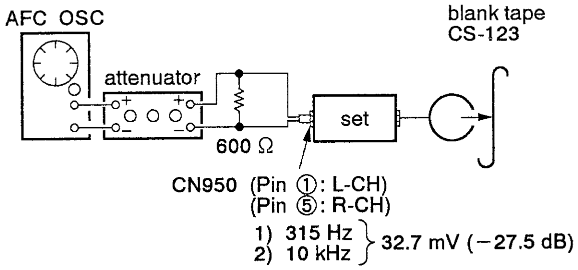
Confirm the level does not change in playback mode while changing the mode from playback to stop several time.

Adjustment Location: AUDIO (A), (B) boards

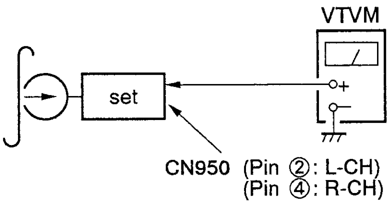
Record BIAS Adjustment DECK B

Procedure:

1. Mode: record


AFC OSC
attenuator
600 Ω
set
blank tape
CS-123
CN950 (Pin ①: L-CH)
(Pin ⑤: R-CH)
1) 315 Hz
2) 10 kHz
32.7 mV (−27.5 dB)

2. Mode: playback


VTVM
set
CN950 (Pin ②: L-CH)
(Pin ④: R-CH)

Confirm playback the signal recorded in step 1 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV12 (L-CH) and RV22 (R-CH) to repeat step 1 and 2.

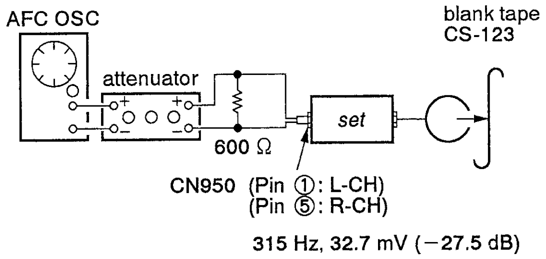
Adjustment Level: Playback output of 10 kHz to playback output of 315 Hz: ± 0.5 dB.

Adjustment Location: AUDIO (B) board

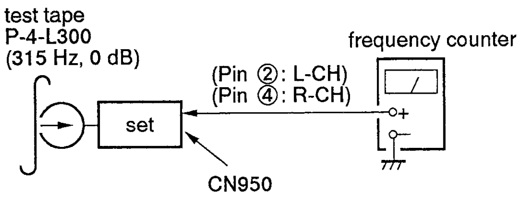
Record Level Adjustments DECK B

Procedure:

1. Mode: record


AFC OSC
attenuator
600 Ω
set
blank tape
CS-123
CN950 (Pin ①: L-CH)
(Pin ⑤: R-CH)
315 Hz, 32.7 mV (−27.5 dB)

2. Mode: playback


test tape
P-4-L300
(315 Hz, 0 dB)
frequency counter
(Pin ②: L-CH)
(Pin ④: R-CH)
set
CN950

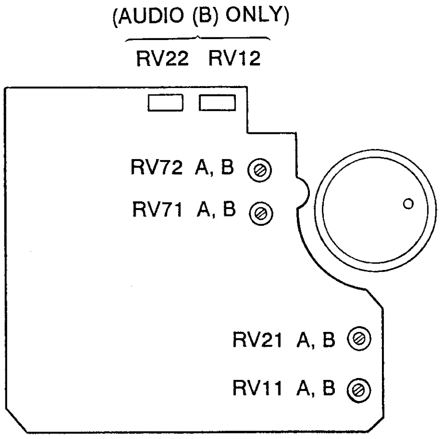
Confirm playback the signal recorded in step 1 become adjustment level as follows.
If these levels do not adjustment level, adjust the RV101 (L-CH) and RV201 (R-CH) to repeat step 1 and 2.

Adjustment Level:
CN950 PB level: − 27.5 dB ± 0.5 dB (31 to 35 mV).

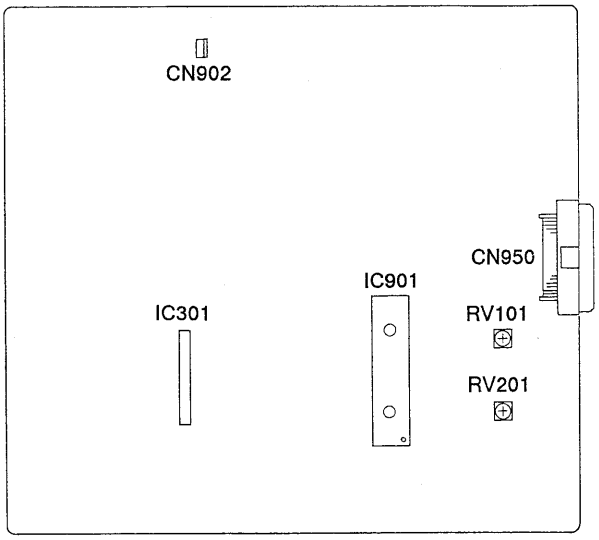
Adjustment Location: MAIN board

Adjusting Parts Location:

[AUDIO (A), AUDIO (B) Board] – Conductor Side –


(AUDIO (B) ONLY)
RV22 RV12
RV72 A, B
RV71 A, B
RV21 A, B
RV11 A, B

[MAIN Board] – Component Side –


CN902
CN950
IC901
IC301
RV101
RV201

SECTION 5
DIAGRAMS

5-1. IC PIN FUNCTION DESCRIPTION
MAIN BOARD IC901 M50964-261FP (SYSTEM CONTROL)

<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Function</th></tr>
<tr><td>1</td><td>G</td><td>–</td><td rowspan="3">GND</td></tr>
<tr><td>2</td><td>G</td><td>–</td></tr>
<tr><td>3</td><td>G</td><td>–</td></tr>
<tr><td>4</td><td>—</td><td>–</td><td>+5V</td></tr>
<tr><td>5</td><td>$\overline{\text{NORM}}$/HIGH</td><td>–</td><td>Tape speed "H"=High speed "L"=Normal speed</td></tr>
<tr><td>6</td><td>B HALF</td><td>I</td><td>Deck B record prevention claw A, B detection input (Analog)
<table>
<tr><th>Voltage (V)</th><th>1V</th><th>1.9V</th><th>2.8V</th><th>3.9V</th><th>5V</th></tr>
<tr><td>Half</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>OFF</td></tr>
<tr><td>E. PROOF A</td><td>OFF</td><td>ON</td><td>OFF</td><td>ON</td><td>OFF</td></tr>
<tr><td>E. PROOF B</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td></tr>
</table></td></tr>
<tr><td>7</td><td>KEY Y</td><td>I</td><td rowspan="2">KEY input
<table>
<tr><th>Voltage (V)</th><th>0</th><th>0.3</th><th>0.7</th><th>1.2</th><th>1.7</th><th>2.3</th><th>2.8</th><th>3.4</th><th>4.0</th><th>4.5</th><th>5.0</th></tr>
<tr><td>KEY Y</td><td>B ■</td><td>B ❚❚</td><td>B ▶</td><td>B ◀</td><td></td><td>A ◀◀</td><td>A ▶▶</td><td></td><td></td><td>RELAY</td><td>OFF</td></tr>
<tr><td>KEY X</td><td>A ■</td><td>A ▶</td><td>A ◀</td><td>B ◀◀</td><td>B ▶▶</td><td>B ●</td><td>DUB</td><td></td><td>CD</td><td></td><td></td></tr>
</table></td></tr>
<tr><td>8</td><td>KEY X</td><td>I</td></tr>
<tr><td>9</td><td>AMS IN</td><td>I</td><td>AMS signal input</td></tr>
<tr><td>10</td><td>LM ON/$\overline{\text{OFF}}$</td><td>O</td><td>Line mute output</td></tr>
<tr><td>11</td><td>RM $\overline{\text{ON}}$/OFF</td><td>O</td><td>Mute output</td></tr>
<tr><td>12</td><td>RELAY $\overline{\text{ON}}$/OFF</td><td>O</td><td>REC/PB change relay output</td></tr>
<tr><td>13</td><td>$\overline{\text{REC}}$/PB</td><td>O</td><td>Dolby IC REC/PB select output</td></tr>
<tr><td>14</td><td>EQ70</td><td>O</td><td>Playback EQ output for playing deck (Not used)</td></tr>
<tr><td>15</td><td>SEL A/$\overline{\text{B}}$</td><td>O</td><td>Dolby IC PB input Deck A/B select output</td></tr>
<tr><td>16</td><td>AMS MUTE</td><td>O</td><td>AMS mute output</td></tr>
<tr><td>17</td><td>AU BUS</td><td>I</td><td>AUDIO BUS input</td></tr>
<tr><td>18</td><td>BIAS ON/$\overline{\text{OFF}}$</td><td>O</td><td>Bias oscillation output</td></tr>
<tr><td>19</td><td>AUB OUT</td><td>O</td><td>AUDIO BUS output</td></tr>
<tr><td>20</td><td>A BUS</td><td>I</td><td>AUDIO BUS normal input</td></tr>
<tr><td>21</td><td>NC</td><td>–</td><td>Not used</td></tr>
<tr><td>22</td><td>NC</td><td>–</td><td rowspan="3">GND</td></tr>
<tr><td>23</td><td>NC</td><td>–</td></tr>
<tr><td>24</td><td>Vss</td><td>–</td></tr>
<tr><td>25</td><td>RESET</td><td>I</td><td>Microcomputer reset input</td></tr>
<tr><td>26</td><td>XIN</td><td>I</td><td>Clock input (4 MHz)</td></tr>
<tr><td>27</td><td>XOUT</td><td>O</td><td>Clock output (4 MHz)</td></tr>
<tr><td>28</td><td>ϕ</td><td>O</td><td>Not used (open)</td></tr>
<tr><td>29</td><td>Vss</td><td>–</td><td rowspan="2">GND</td></tr>
<tr><td>30</td><td>PW IN</td><td>I</td></tr>
<tr><td>31</td><td>A STOP</td><td>I</td><td>Deck A STOP switch input</td></tr>
<tr><td>32</td><td>A HALF</td><td>I</td><td>Deck A Half switch input</td></tr>
<tr><td>33</td><td>A SHUT</td><td>I</td><td>Deck A Reel table signal input</td></tr>
<tr><td>34</td><td>A70 U</td><td>I</td><td>GND</td></tr>
<tr><td>35</td><td>B STOP</td><td>I</td><td>Deck B STOP switch input</td></tr>
</table>

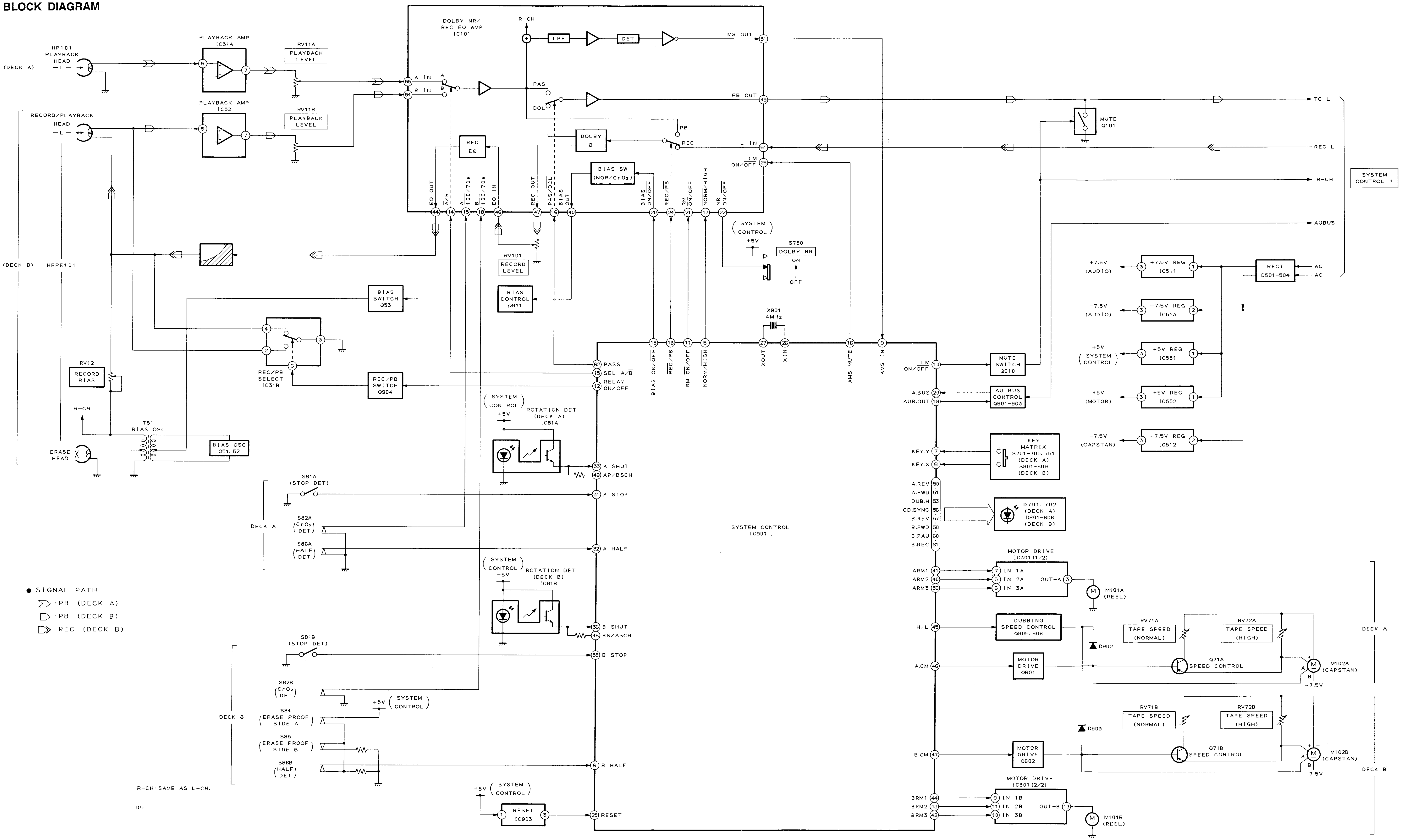
Pin No.	Pin Name	I/O	Function
36	B SHUT	I	Deck B Reel table signal input
37	B70 U	I	+5V
38	NC	–	Not used
39	ARM 3	O	Deck A Reel Motor control out
40	ARM 2	O	
41	ARM 1	O	
42	BRM 3	O	Deck B Reel Motor control out
43	BRM 2	O	
44	BRM 1	O	
45	H/L	O	Capstan motor speed select
46	A CM	O	A Capstan motor ON/OFF
47	B CM	O	B Capstan motor ON/OFF
48	BS/ASCH	I	Deck B Reel table/BS signal input
49	AP/BSCH	I	Deck A Reel table/AP signal input
50	A REV	O	Deck A RVS LED output
51	A FWD	O	Deck A FWD LED output
52	A PLAY	O	Deck B RVS/FWD LED control output (Not used)
53	DUB H	O	High Speed Dubbing LED output
54	DUB N	O	Normal Speed Dubbing LED output (Not used)
55	NC	–	Not used
56	CD SYNC	O	Auto CD Synchro LED output
57	B REV	O	Deck B RVS LED output
58	B FWD	O	Deck B FWD LED output
59	B PLAY	O	Deck B RVS/FWD LED control output (Not used)
60	B PAUSE	O	Deck B PAUSE LED output
61	B REC	O	Deck B REC LED output
62	PASS	O	PASS amplifier switch output
63	TEST	I	Electrical adjustment test mode setting
64	NC	–	+5 V
65	Vss	–	GND
66	NC	–	Not used
67	Vcc	–	POWER 5 ± 0.5V
68	AVss	–	Analog system GND
69	VREF	I	Analog system reference voltage input
70	DAC	–	GND
71	—	–	
72	—	–	

[TEST MODE]

When making pin (63) low (connect pin ① of CN902 to ground with jumper wire), following function operates.

1. Source monitor
   Release the line mute while recording.

5-2. BLOCK DIAGRAM


HP101 PLAYBACK HEAD
(DECK A)
PLAYBACK AMP IC31A
RV11A PLAYBACK LEVEL
RECORD/PLAYBACK HEAD
PLAYBACK AMP IC32
RV11B PLAYBACK LEVEL
(DECK B)
HRPE101
DOLBY NR/ REC EQ AMP IC101
A IN
B IN
R-CH
LPF
DET
MS OUT
PAS
DOL
PB OUT
PB
REC
DOLBY B
REC EQ
BIAS SW (NOR/CrO2)
L IN
LM ON/OFF
EQ OUT
A/B
A 120/70μ
B 120/70μ
EQ IN
REC OUT
PAS/DOL
BIAS OUT
BIAS ON/OFF
REC/PB
RM ON/OFF
NORM/HIGH
NR ON/OFF
RV101 RECORD LEVEL
(SYSTEM CONTROL)
+5V
S750 DOLBY NR
ON
OFF
BIAS SWITCH Q53
BIAS CONTROL Q911
REC/PB SELECT IC31B
REC/PB SWITCH Q904
RV12 RECORD BIAS
R-CH
T51 BIAS OSC
BIAS OSC Q51, 52
ERASE HEAD
X901 4MHz
XOUT
XIN
AMS MUTE
AMS IN
PASS
SEL A/B
RELAY ON/OFF
(SYSTEM CONTROL) +5V
ROTATION DET (DECK A) IC81A
A SHUT
AP/BSCH
S81A (STOP DET)
A STOP
DECK A
S82A (CrO2 DET)
S86A (HALF DET)
A HALF
(SYSTEM CONTROL) +5V
ROTATION DET (DECK B) IC81B
B SHUT
BS/ASCH
S81B (STOP DET)
B STOP
DECK B
S82B (CrO2 DET)
S84 (ERASE PROOF SIDE A)
+5V (SYSTEM CONTROL)
S85 (ERASE PROOF SIDE B)
S86B (HALF DET)
B HALF
+5V (SYSTEM CONTROL)
RESET IC903
RESET
SYSTEM CONTROL IC901
LM ON/OFF
MUTE SWITCH Q910
A.BUS
AUB.OUT
AU BUS CONTROL Q901-903
KEY.Y
KEY.X
KEY MATRIX S701-705, 751 (DECK A) S801-809 (DECK B)
A.REV
A.FWD
DUB.H
CD.SYNC
B.REV
B.FWD
B.PAU
B.REC
D701, 702 (DECK A) D801-806 (DECK B)
MOTOR DRIVE IC301 (1/2)
ARM1
ARM2
ARM3
IN 1A
IN 2A
IN 3A
OUT-A
M101A (REEL)
H/L
DUBBING SPEED CONTROL Q905, 906
D902
RV71A TAPE SPEED (NORMAL)
RV72A TAPE SPEED (HIGH)
A.CM
MOTOR DRIVE Q601
Q71A SPEED CONTROL
M102A (CAPSTAN)
-7.5V
D903
RV71B TAPE SPEED (NORMAL)
RV72B TAPE SPEED (HIGH)
B.CM
MOTOR DRIVE Q602
Q71B SPEED CONTROL
M102B (CAPSTAN)
-7.5V
MOTOR DRIVE IC301 (2/2)
BRM1
BRM2
BRM3
IN 1B
IN 2B
IN 3B
OUT-B
M101B (REEL)
MUTE Q101
TC L
REC L
R-CH
AUBUS
SYSTEM CONTROL 1
+7.5V (AUDIO)
+7.5V REG IC511
-7.5V (AUDIO)
-7.5V REG IC513
+5V (SYSTEM CONTROL)
+5V REG IC551
+5V (MOTOR)
+5V REG IC552
-7.5V (CAPSTAN)
+7.5V REG IC512
RECT D501-504
AC
AC
DECK A
DECK B
● SIGNAL PATH
PB (DECK A)
PB (DECK B)
REC (DECK B)

R-CH SAME AS L-CH.

05

5-3. PRINTED WIRING BOARDS

• Semiconductor Location

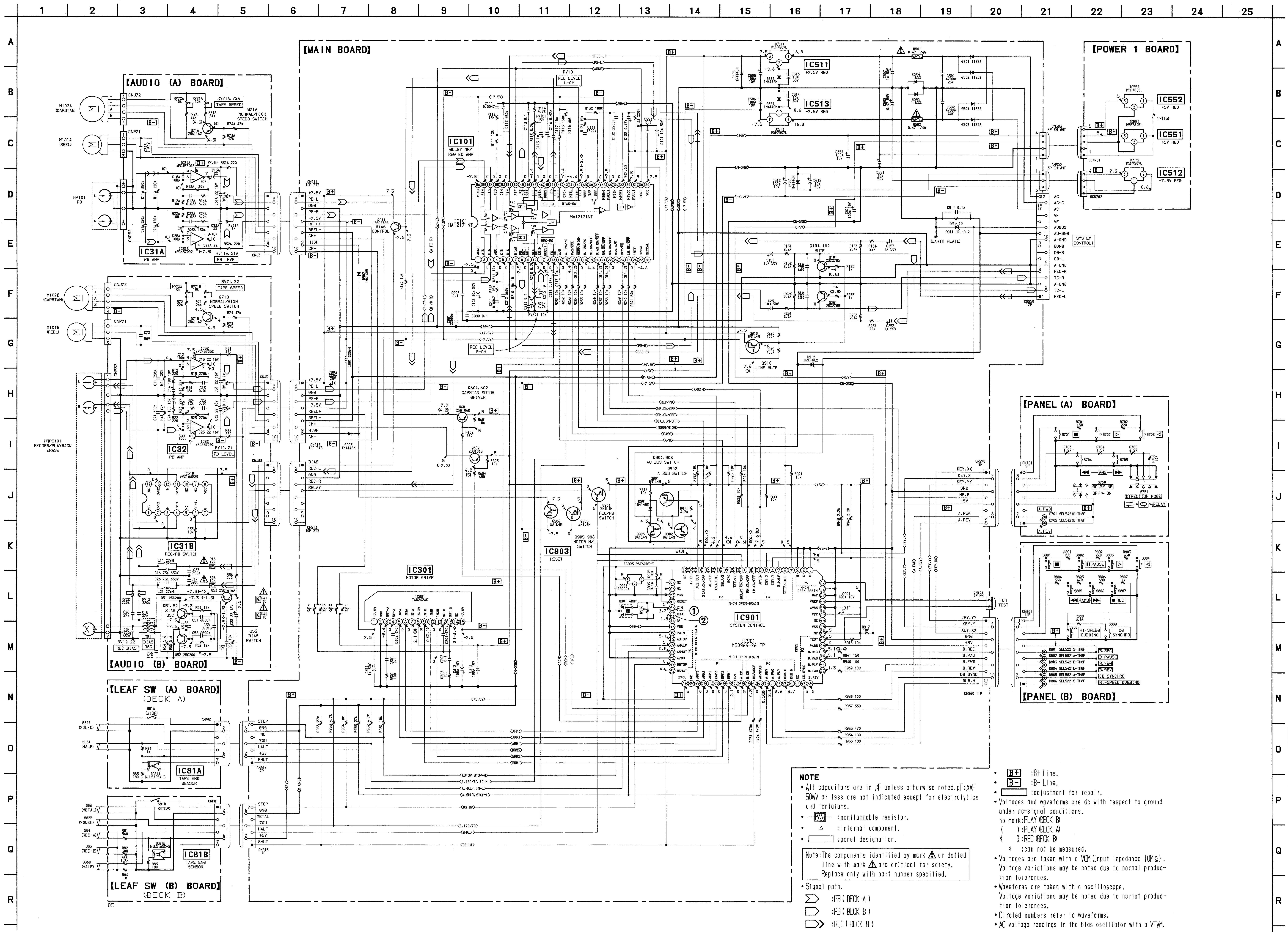
Ref. No.	Location
D501	G-27
D502	G-27
D503	G-27
D504	G-27
D582	H-26
D584	H-26
D586	I-25
D701	H-10
D702	H-11
D801	C-10
D802	C-11
D803	D-10
D804	D-11
D805	B-10
D806	B-10
D901	G-23
D902	H-20
D903	D-22
D904	H-27
D905	H-27
D911	F-26
D912	F-26
IC31A	G-15
IC31B	G-3
IC32	G-5
IC81A	C-16
IC81B	C-6
IC101	D-25
IC301	D-22
IC511	G-26
IC512	J-25
IC513	H-25
IC551	J-28
IC552	J-26
IC901	H-22
IC903	G-23
Q51	F-5
Q52	E-5
Q53	F-4
Q71A	G-16
Q81B	G-6
Q101	B-26
Q201	B-27
Q601	F-22
Q602	E-22
Q901	G-23
Q902	F-23
Q903	G-23
Q904	H-23
Q905	E-22
Q906	E-22
Q910	G-23
Q911	C-22

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28
A B C D E F G H I J
【LEAF SW (B) BOARD】(DECK B)
【PANEL (B) BOARD】(DECK B)
【LEAF SW (A) BOARD】(DECK A)
【MAIN BOARD】
【AUDIO (B) BOARD】(DECK B)
【AUDIO (A) BOARD】(DECK A)
【PANEL (A) BOARD】(DECK A)
【POWER 1 BOARD】
HRPE101 RECORD/PLAYBACK/ERASE HEAD
HP101 PLAYBACK HEAD
M101 B (REEL MOTOR)
M102 B (CAPSTAN MOTOR)
M101A REEL MOTOR
M102A CAPSTAN MOTOR
CNJ32
BRN ORG BLK BLU YEL WHT RED
YEL WHT RED BLK
BLK (CHASSIS)
WHT RED
SYSTEM CONTROL 1
(CHASSIS)

Note:

- ●—— : parts extracted from the component side.
- ○—●—○ : Jumper wire connected to the ground pattern on the component side.
- △ : internal component.

5-4. SCHEMATIC DIAGRAM



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
A B C D E F G H I J K L M N O P Q R
【AUDIO (A) BOARD】
IC31A
PB AMP
【AUDIO (B) BOARD】
IC32
PB AMP
IC31B
REC/PB SWITCH
【MAIN BOARD】
IC101
DOLBY NR/
REC EQ AMP
IC301
MOTOR DRIVE
IC903
RESET
IC901
SYSTEM CONTROL
IC511
+7.5V REG
IC513
-7.5V REG
【POWER 1 BOARD】
IC552
+5V REG
IC551
+5V REG
IC512
-7.5V REG
【PANEL (A) BOARD】
【PANEL (B) BOARD】
【LEAF SW (A) BOARD】
(DECK A)
IC81A
TAPE END SENSOR
【LEAF SW (B) BOARD】
(DECK B)
IC81B
TAPE END SENSOR
M102A (CAPSTAN)
M101A (REEL)
HP101 PB
M102B (CAPSTAN)
M101B (REEL)
HRPE101 RECORD/PLAYBACK ERASE

NOTE

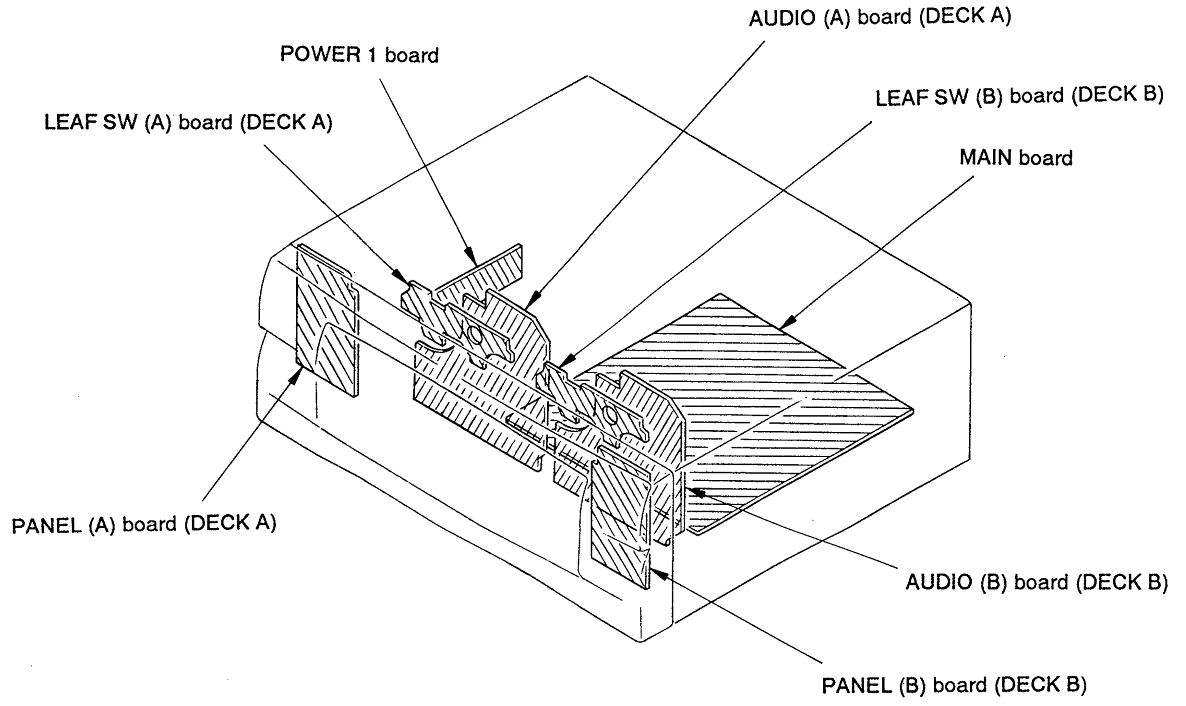
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- ⊞ :nonflammable resistor.
- △ :internal component.
- ▭ :panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- Signal path.
  - ⊳ :PB (DECK A)
  - ▷ :PB (DECK B)
  - ▷» :REC (DECK B)

- **B+** :B+ Line.
- **B−** :B− Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: PLAY (DECK B)
  ( ) : PLAY (DECK A)
  《 》: REC (DECK B)
  * :can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normat production tolerances.
- Circled numbers refer to waveforms.
- AC voltage readings in the bias oscillator with a VTVM.

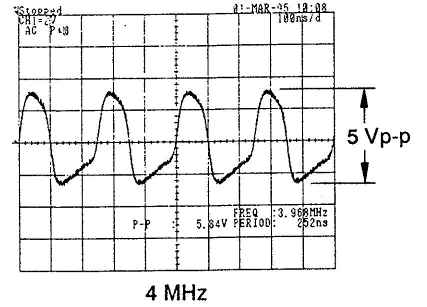
- **Circuit Boards Location**



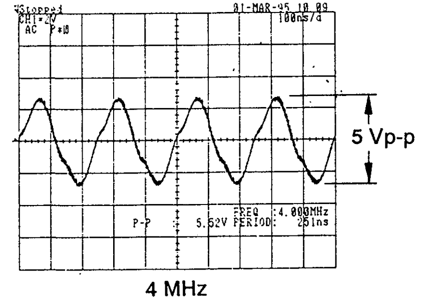
POWER 1 board
AUDIO (A) board (DECK A)
LEAF SW (A) board (DECK A)
LEAF SW (B) board (DECK B)
MAIN board
PANEL (A) board (DECK A)
AUDIO (B) board (DECK B)
PANEL (B) board (DECK B)

- **Waveforms (MAIN BOARD)**

❶ IC901 ㉖

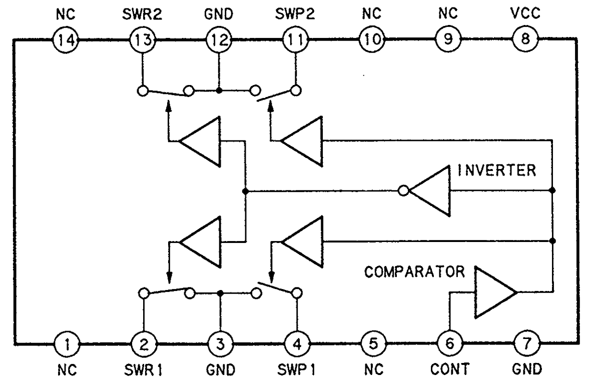


❷ IC901 ㉗



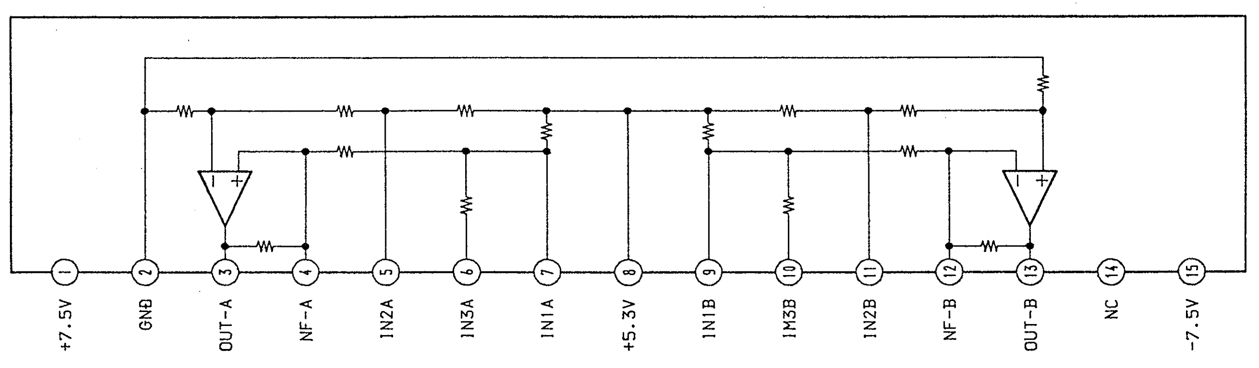
- **IC Block Diagrams**

IC31B μPC1330GR (AUDIO (B) BOARD)



NC
SWR2
GND
SWP2
NC
NC
VCC
INVERTER
COMPARATOR
NC
SWR1
GND
SWP1
NC
CONT
GND

IC301 TA8242AK (MAIN BOARD)



+7.5V
GND
OUT-A
NF-A
IN2A
IN3A
IN1A
+5.3V
IN1B
IN3B
IN2B
NF-B
OUT-B
NC
-7.5V

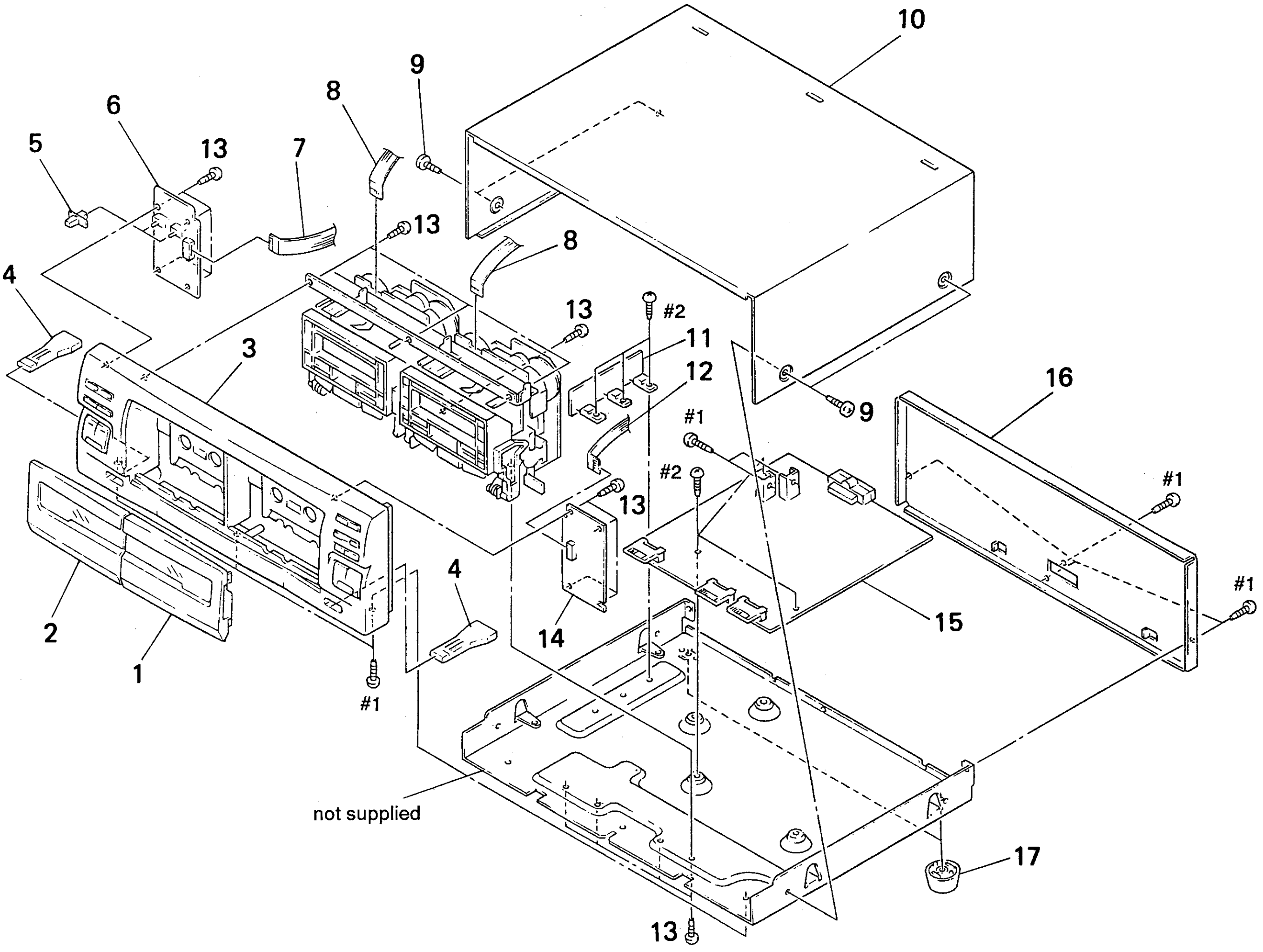
SECTION 6

EXPLODED VIEWS

NOTE:

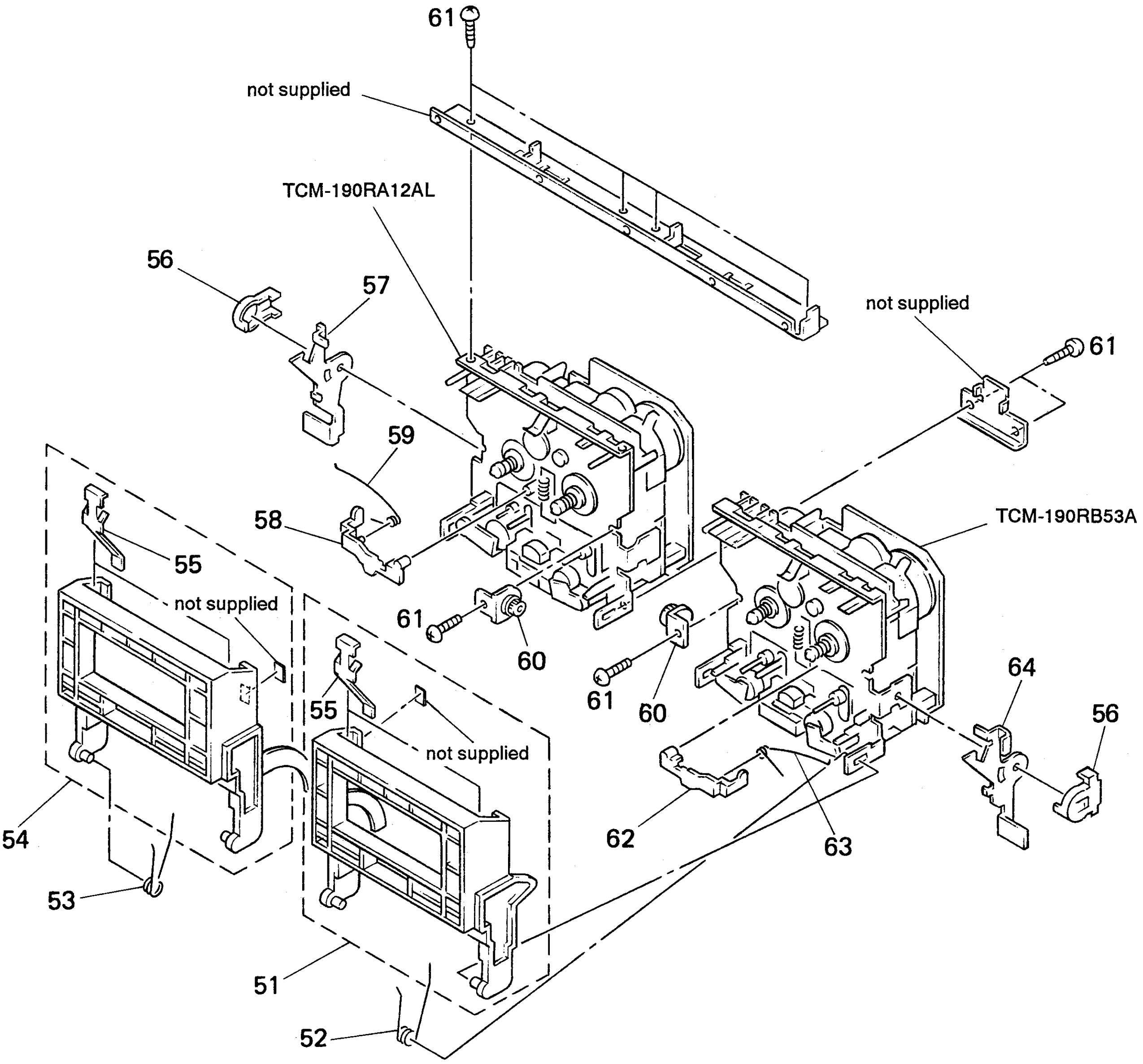
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.
- Abbreviation
  IT : Italian
  G : German
  AR : Argentine
  SP : Singapore
  MY : Malaysia
  EE : East European
  AU : Australian
  EA : Saudi Arabia
  MX : Mexican

(1) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
1	X-3369-643-1	LID (B DECK) ASSY, CASSETTE	
2	X-3369-642-1	LID (A DECK) ASSY, CASSETTE	
3	X-3369-668-1	PANEL ASSY, FRONT	
4	3-918-281-01	BUTTON (EJECT)	
5	4-962-707-01	KNOB, SLIDE	
* 6	1-655-022-13	PANEL (A) BOARD	
7	1-769-664-11	WIRE (FLAT TYPE) (9 CORE)	
8	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	4-969-778-31	CASE	
* 11	1-655-415-13	POWER 1 BOARD	
12	1-590-488-11	WIRE, FLAT TYPE (11 CORE)	
13	4-951-620-01	SCREW (2.6X8), +BVTP	
* 14	1-655-023-13	PANEL (B) BOARD	
* 15	A-2007-332-A	MAIN BOARD, COMPLETE	
* 16	3-918-326-01	PANEL, BACK (AEP, UK, IT, G)	
* 16	3-918-326-11	PANEL, BACK (E, AR, SP, MY, EE)	
* 16	3-918-326-21	PANEL, BACK (AU, EA, PX, MX)	
17	X-4941-228-1	FOOT ASSY	

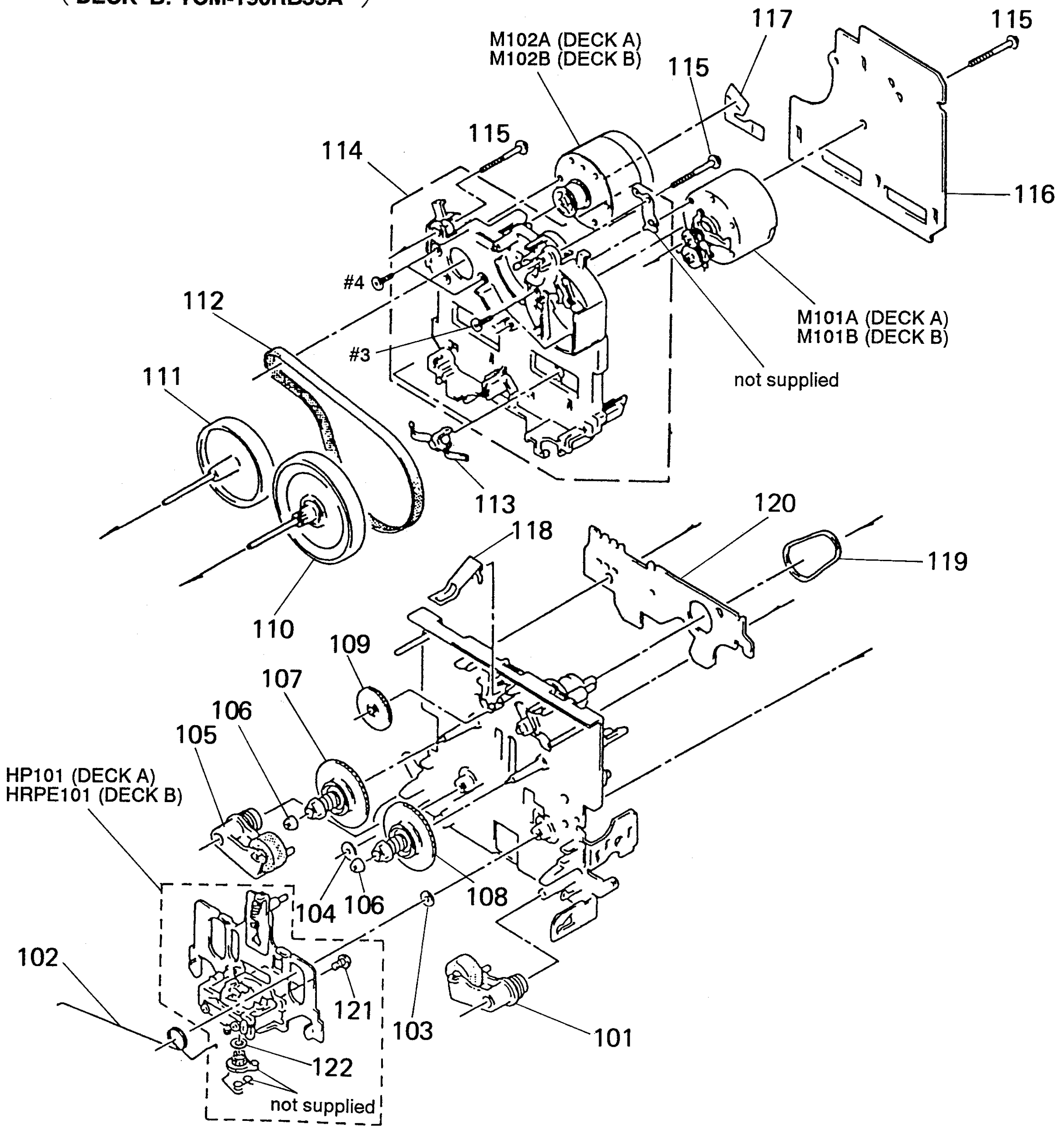
(2) MECHANISM DECK CHASSIS SECTION


61
not supplied
TCM-190RA12AL
56
57
not supplied
61
59
58
TCM-190RB53A
55
not supplied
61
60
64
55
61
60
56
not supplied
54
62
63
53
51
52

Ref. No.	Part No.	Description	Remark
51	A-4325-164-A	HOLDER (R) ASSY, CASSETTE	
52	3-354-960-01	SPRING (LOADING R), TORSION	
53	3-354-959-01	SPRING (LOADING L), TORSION	
54	A-4325-163-A	HOLDER (L) ASSY, CASSETTE	
55	3-308-823-11	DETENT, CASSETTE	
56	3-354-957-01	JOINT (LOCK LEVER)	
* 57	3-354-953-01	LEVER (LOCK LEVER L)	
58	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
59	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
60	3-354-963-01	DAMPER	
61	4-951-620-01	SCREW (2.6X8), +BVTP	
62	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
63	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 64	3-354-954-01	LEVER (LOCK LEVER R)	

(3) MECHANISM DECK SECTION-1

(DECK A: TCM-190RA12AL
DECK B: TCM-190RB53A)

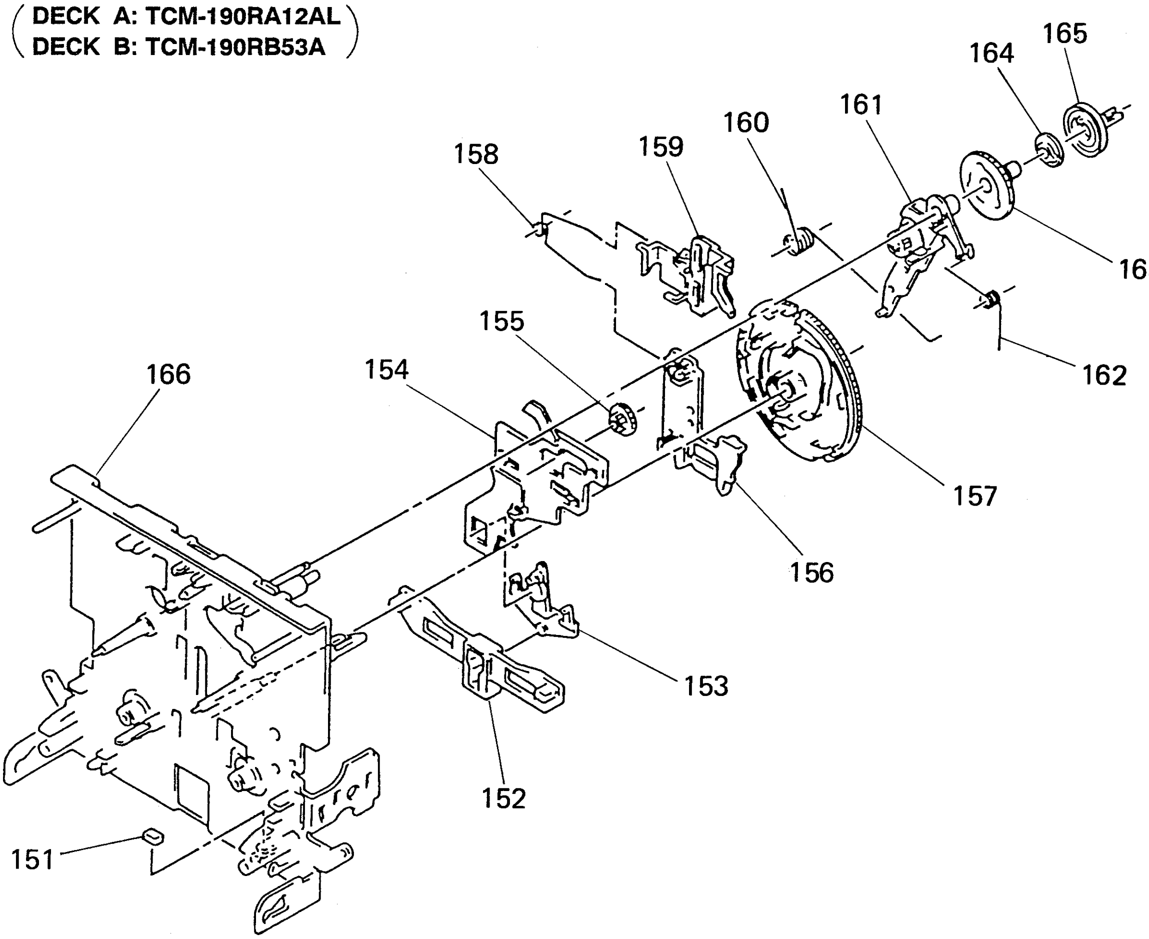

117
115
M102A (DECK A)
M102B (DECK B)
115
115
114
116
#4
112
#3
M101A (DECK A)
M101B (DECK B)
111
not supplied
113
120
118
119
110
109
107
106
105
HP101 (DECK A)
HRPE101 (DECK B)
104
106
108
102
121
103
101
122
not supplied

Ref. No.	Part No.	Description	Remark
101	X-3366-047-1	LEVER (PINCH F) ASSY	
102	3-907-362-01	SPRING, TORSION	
103	3-356-713-01	WASHER	
104	3-356-714-01	WASHER	
105	X-3366-048-1	LEVER (PINCH R) ASSY	
106	3-362-308-01	CAP (REEL)	
107	X-3366-971-1	TABLE ASSY (B), REEL	
108	X-3366-970-1	TABLE ASSY, REEL	
109	3-359-424-01	GEAR (REV GEAR)	
110	X-3367-629-1	FLYWHEEL (FWD) ASSY	
111	X-3359-410-1	FLYWHEEL (REV) ASSY (DECK A)	
111	X-3367-630-1	FLYWHEEL (REV) ASSY (DECK B)	
112	3-359-417-01	BELT (FLAT), CAPSTAN	
113	3-575-321-00	RETAINER, THRUST, CAPSTAN	
114	3-359-436-11	BASE (THRUST RETAINER), FITTING	
115	3-359-414-01	SCREW (+PTPWH 2X23)	

Ref. No.	Part No.	Description	Remark
* 116	A-2007-134-A	AUDIO BOARD, COMPLETE (DECK B)	
* 116	A-2007-266-A	AUDIO BOARD, COMPLETE (DECK A)	
117	1-638-983-11	MOTOR FLEXIBLE BOARD	
118	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
119	3-359-466-01	BELT (FR), SQUARE	
* 120	1-638-020-11	LEAF SW BOARD (DECK A)	
* 120	1-638-020-11	LEAF SW BOARD (DECK B)	
121	3-388-848-01	SCREW (P2X6) (B TIGHT)	
122	3-701-440-11	WASHER, 3.5 (DECK B)	
122	3-701-440-21	WASHER, 3.5 (DECK A)	
HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
HRPE101	A-2003-930-A	BASE ASSY, HEAD (DECK B)	
M101A	X-3363-501-2	MOTOR ASSY (REEL) (DECK A)	
M101B	X-3363-501-2	MOTOR ASSY (REEL) (DECK B)	
M102A	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK A)	
M102B	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK B)	

(4) MECHANISM DECK SECTION-2

(DECK A: TCM-190RA12AL
DECK B: TCM-190RB53A)



Ref. No.	Part No.	Description	Remark
151	3-359-469-01	SPACER	
152	3-359-425-01	SLIDER (REVERSE SLIDER)	
153	3-359-426-01	LEVER (REVERSE LEVER)	
* 154	3-359-415-01	SLIDER (TRIGGER SLIDER) (DECK A)	
* 154	3-359-415-11	SLIDER (TRIGGER SLIDER) (DECK B)	
155	3-359-448-01	GEAR (TRIGGER)	
156	3-359-427-01	SLIDER (LEVERSE SLIDER)	
157	3-359-420-01	GEAR (CAM GEAR)	
158	3-359-454-01	SPRING, TORSION	
159	3-359-429-01	SLIDER (BRAKE PLATE) (DECK A)	
159	3-359-429-11	SLIDER (BRAKE PLATE) (DECK B)	
160	3-359-456-01	SPRING(TRIGGER SPRING), TORSION	
161	X-3366-569-1	ARM ASSY, FR	
162	3-924-185-11	SPRING (FR ARM), TORSION	
163	3-359-419-11	GEAR (FR GEAR)	
164	3-359-421-01	CLUTCH (REEL DISK)	
165	3-359-418-01	PULLEY (FR PULLEY)	
166	X-3359-415-1	CHASSIS ASSY, MECHANICAL (DECK A)	
166	X-3363-790-1	CHASSIS ASSY, MECHANICAL (DECK B)	

SECTION 7
ELECTRICAL PARTS LIST

AUDIO (A) **AUDIO (B)**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-2007-266-A	AUDIO (A) BOARD, COMPLETE (DECK A)			
		*********************************			
		< CAPACITOR >			
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-136-157-00	FILM	0.022uF	5%	50V
C13	1-124-234-00	ELECT	22uF	20%	16V
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-136-157-00	FILM	0.022uF	5%	50V
C23	1-124-234-00	ELECT	22uF	20%	16V
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V
		< CONNECTOR >			
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD			
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P			
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P			
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< IC >			
IC31A	8-759-106-02	IC uPC4570G2			
		< JUMPER RESISTOR >			
JW1	1-216-295-00	CONDUCTOR, CHIP			
JW51	1-216-296-00	METAL CHIP	0	5%	1/8W
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W
		< TRANSISTOR >			
Q71A	8-729-216-22	TRANSISTOR 2SA1162			
		< RESISTOR >			
R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R12	1-216-025-00	METAL GLAZE	100	5%	1/10W
R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R14	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R21	1-216-099-00	METAL CHIP	120K	5%	1/10W
R22	1-216-025-00	METAL GLAZE	100	5%	1/10W
R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R24	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-033-00	METAL CHIP	220	5%	1/10W
R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
R73	1-216-089-00	METAL CHIP	47K	5%	1/10W
R74	1-216-089-00	METAL CHIP	47K	5%	1/10W
R807	1-249-417-11	CARBON	1K	5%	1/4W
R808	1-249-426-11	CARBON	5.6K	5%	1/4W
		< VARIABLE RESISTOR >			
RV11A	1-241-761-11	RES, ADJ, CARBON 1K			
RV21A	1-241-761-11	RES, ADJ, CARBON 1K			
RV71A	1-241-630-11	RES, ADJ, CARBON 10K			
RV72A	1-241-630-11	RES, ADJ, CARBON 10K			
**					
*	A-2007-134-A	AUDIO (B) BOARD, COMPLETE (DECK B)			
		*********************************			
		< CAPACITOR >			
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C12	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C13	1-136-153-00	FILM	0.01uF	5%	50V
C14	1-126-177-11	ELECT	100uF	20%	10V
C15	1-124-234-00	ELECT	22uF	20%	16V
C16	1-136-273-00	FILM	75PF	5%	630V
C17	1-164-080-11	CERAMIC	390PF	10%	50V
C18	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C22	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C23	1-136-153-00	FILM	0.01uF	5%	50V
C24	1-126-177-11	ELECT	100uF	20%	10V
C25	1-124-234-00	ELECT	22uF	20%	16V
C26	1-136-273-00	FILM	75PF	5%	630V
C27	1-164-080-11	CERAMIC	390PF	10%	50V

AUDIO (B)

Ref. No.	Part No.	Description			Remark
C28	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C31	1-124-234-00	ELECT	22uF	20%	16V
C32	1-124-234-00	ELECT	22uF	20%	16V
C33	1-124-234-00	ELECT	22uF	20%	16V
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V
C54	1-136-559-11	FILM	0.0047uF	5%	630V
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C57	1-164-346-11	CERAMIC CHIP	1uF		16V
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V

< CONNECTOR >

* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD
* CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD
CNJ72	1-764-902-11	CONNECTOR, FFC/FPC 4P
* CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P

< IC >

IC31B	8-759-249-21	IC	uPC1330GR
IC32	8-759-106-02	IC	uPC4570G2

< JUMPER RESISTOR >

JW1	1-216-295-00	CONDUCTOR, CHIP			
JW2	1-216-295-00	CONDUCTOR, CHIP			
JW11	1-216-296-00	METAL CHIP	0	5%	1/8W
JW12	1-216-296-00	METAL CHIP	0	5%	1/8W
JW13	1-216-296-00	METAL CHIP	0	5%	1/8W
JW14	1-216-296-00	METAL CHIP	0	5%	1/8W
JW15	1-216-296-00	METAL CHIP	0	5%	1/8W
JW16	1-216-296-00	METAL CHIP	0	5%	1/8W
JW17	1-216-296-00	METAL CHIP	0	5%	1/8W
JW18	1-216-296-00	METAL CHIP	0	5%	1/8W
JW19	1-216-296-00	METAL CHIP	0	5%	1/8W
JW20	1-216-296-00	METAL CHIP	0	5%	1/8W
JW21	1-216-296-00	METAL CHIP	0	5%	1/8W
JW22	1-216-296-00	METAL CHIP	0	5%	1/8W
JW23	1-216-296-00	METAL CHIP	0	5%	1/8W
JW24	1-216-296-00	METAL CHIP	0	5%	1/8W
JW25	1-216-296-00	METAL CHIP	0	5%	1/8W
JW26	1-216-296-00	METAL CHIP	0	5%	1/8W
JW27	1-216-296-00	METAL CHIP	0	5%	1/8W

< COIL >

L11	1-410-780-11	INDUCTOR	27uH
L21	1-410-780-11	INDUCTOR	27uH

Ref. No.	Part No.	Description	Remark

< TRANSISTOR >

Q51	8-729-142-46	TRANSISTOR	2SC2001-LK
Q52	8-729-142-46	TRANSISTOR	2SC2001-LK
Q53	8-729-111-29	TRANSISTOR	2SD1616A-K
Q71B	8-729-216-22	TRANSISTOR	2SA1162

< RESISTOR >

R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
R12	1-216-033-00	METAL CHIP	220	5%	1/10W
R13	1-216-081-00	METAL CHIP	22K	5%	1/10W
R14	1-216-075-00	METAL CHIP	12K	5%	1/10W
R15	1-216-107-00	METAL CHIP	270K	5%	1/10W
⚠R16	1-249-430-11	CARBON	12K	5%	1/4W
R21	1-216-099-00	METAL CHIP	120K	5%	1/10W
R22	1-216-033-00	METAL CHIP	220	5%	1/10W
R23	1-216-081-00	METAL CHIP	22K	5%	1/10W
R24	1-216-075-00	METAL CHIP	12K	5%	1/10W
R25	1-216-107-00	METAL CHIP	270K	5%	1/10W
⚠R26	1-249-430-11	CARBON	12K	5%	1/4W
R31	1-216-033-00	METAL CHIP	220	5%	1/10W
R32	1-216-033-00	METAL CHIP	220	5%	1/10W
R33	1-216-073-00	METAL CHIP	10K	5%	1/10W
⚠R41	1-249-393-11	CARBON	10	5%	1/4W
⚠R42	1-249-393-11	CARBON	10	5%	1/4W
R51	1-216-075-00	METAL CHIP	12K	5%	1/10W
R52	1-216-075-00	METAL CHIP	12K	5%	1/10W
R53	1-216-073-00	METAL CHIP	10K	5%	1/10W
R54	1-216-309-00	METAL CHIP	5.6	5%	1/10W
R55	1-216-309-00	METAL CHIP	5.6	5%	1/10W
R56	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
R73	1-216-089-00	METAL CHIP	47K	5%	1/10W
R74	1-216-089-00	METAL CHIP	47K	5%	1/10W

< VARIABLE RESISTOR >

RV11B	1-241-761-11	RES, ADJ, CARBON 1K
RV12	1-238-551-11	RES, ADJ, CARBON 220K
RV21B	1-241-761-11	RES, ADJ, CARBON 1K
RV22	1-238-551-11	RES, ADJ, CARBON 220K
RV71B	1-241-630-11	RES, ADJ, CARBON 10K
RV72B	1-241-630-11	RES, ADJ, CARBON 10K

< TRANSFORMER >

T51	1-406-419-11	COIL, BIAS OSCILLATION

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The components identified by
mark ⚠ or dotted line with mark.
⚠ are critical for safety.
Replace only with part number
specified.

Ref. No.	Part No.	Description	Remark
*	1-638-020-11	LEAF SW (A) BOARD (DECK A) **************************	
		< CONNECTOR >	
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		< IC >	
IC81A	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	
		< SWITCH >	
S81A	1-571-958-11	SWITCH, PUSH (1 KEY)(STOP)	
S82A	1-571-281-21	SWITCH, LEAF (70 UEQ)	
S86A	1-571-281-21	SWITCH, LEAF (HALF)	

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Ref. No.	Part No.	Description	Remark
*	1-638-020-11	LEAF SW (B) BOARD (DECK B) **************************	
		< CONNECTOR >	
* CNP81	1-568-850-11	SOCKET, CONNECTOR 7P	
		< IC >	
IC81B	8-749-924-10	IC PHONT REFLECTOR NJL5165K-B(H1)	
		< RESISTOR >	
R81	1-249-414-11	CARBON 560 5% 1/4W	
R82	1-247-818-11	CARBON 300 5% 1/4W	
R83	1-247-834-11	CARBON 1.3K 5% 1/4W	
R84	1-249-417-11	CARBON 1K 5% 1/4W	
R85	1-249-408-11	CARBON 180 5% 1/4W	
		< SWITCH >	
S81B	1-571-958-11	SWITCH, PUSH (1 KEY)(STOP)	
S82B	1-571-281-21	SWITCH, LEAF (70 UEQ)	
S83B	1-571-281-21	SWITCH, LEAF (METAL)	
S84	1-571-281-21	SWITCH, LEAF (REC-A)	
S85	1-571-281-21	SWITCH, LEAF (REC-B)	
S86B	1-571-281-21	SWITCH, LEAF (HALF)	

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Ref. No.	Part No.	Description				Remark
*	A-2007-332-A	MAIN BOARD, COMPLETE *******************				
	1-537-770-11	TERMINAL BOARD, GROUND				
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				
		< CAPACITOR >				
C101	1-124-907-11	ELECT	10uF	20%	50V	
C102	1-124-907-11	ELECT	10uF	20%	50V	
C111	1-137-368-11	FILM	0.0047uF	5%	50V	
C112	1-162-291-31	CERAMIC	560PF	10%	50V	
C113	1-137-399-11	FILM	0.1uF	5%	50V	
C115	1-124-903-11	ELECT	1uF	20%	50V	
C116	1-124-902-00	ELECT	0.47uF	20%	50V	
C117	1-124-907-11	ELECT	10uF	20%	50V	
C131	1-162-600-11	CERAMIC	0.0047uF	20%	16V	
C132	1-162-302-11	CERAMIC	0.0022uF	20%	16V	
C133	1-124-902-00	ELECT	0.47uF	20%	50V	
C151	1-124-907-11	ELECT	10uF	20%	50V	
C152	1-162-286-31	CERAMIC	220PF	10%	50V	
C153	1-124-903-11	ELECT	1uF	20%	50V	
C211	1-137-368-11	FILM	0.0047uF	5%	50V	
C212	1-162-291-31	CERAMIC	560PF	10%	50V	
C213	1-137-399-11	FILM	0.1uF	5%	50V	
C215	1-124-903-11	ELECT	1uF	20%	50V	
C216	1-124-902-00	ELECT	0.47uF	20%	50V	
C217	1-124-907-11	ELECT	10uF	20%	50V	
C251	1-124-907-11	ELECT	10uF	20%	50V	
C252	1-162-286-31	CERAMIC	220PF	10%	50V	
C253	1-124-903-11	ELECT	1uF	20%	50V	
C301	1-164-159-11	CERAMIC	0.1uF		50V	
C302	1-162-290-31	CERAMIC	470PF	10%	50V	
C303	1-164-159-11	CERAMIC	0.1uF		50V	
C304	1-162-290-31	CERAMIC	470PF	10%	50V	
C311	1-124-903-11	ELECT	1uF	20%	50V	
C312	1-124-443-00	ELECT	100uF	20%	10V	
C313	1-124-443-00	ELECT	100uF	20%	10V	
C501	1-124-564-11	ELECT	4700uF	20%	25V	
C502	1-124-564-11	ELECT	4700uF	20%	25V	
C505	1-124-443-00	ELECT	100uF	20%	10V	
C506	1-124-443-00	ELECT	100uF	20%	10V	
C507	1-124-903-11	ELECT	1uF	20%	50V	
C508	1-124-902-00	ELECT	0.47uF	20%	50V	
C511	1-124-443-00	ELECT	100uF	20%	10V	
C512	1-124-443-00	ELECT	100uF	20%	10V	
C513	1-124-907-11	ELECT	10uF	20%	50V	
C514	1-124-907-11	ELECT	10uF	20%	50V	
C515	1-124-907-11	ELECT	10uF	20%	50V	
C551	1-124-907-11	ELECT	10uF	20%	50V	

MAIN

Ref. No.	Part No.	Description	Remark
C552	1-124-443-00	ELECT 100uF 20% 10V	
C901	1-124-584-00	ELECT 100uF 20% 10V	
C903	1-124-120-11	ELECT 220uF 20% 25V	
C911	1-164-159-11	CERAMIC 0.1uF 50V	
C990	1-164-159-11	CERAMIC 0.1uF 50V	
C991	1-161-494-00	CERAMIC 0.022uF 25V	
C992	1-164-159-11	CERAMIC 0.1uF 50V	
C993	1-164-159-11	CERAMIC 0.1uF 50V	
C994	1-161-494-00	CERAMIC 0.022uF 25V	
C995	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
CN502	1-564-506-11	PLUG, CONNECTOR 3P	
* CN503	1-564-507-11	PLUG, CONNECTOR 4P	
* CN902	1-560-060-00	PIN, CONNECTOR 2P	
* CN911	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN912	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN913	1-580-784-11	CONNECTOR, BOARD TO BOARD	
* CN914	1-568-826-11	SOCKET, CONNECTOR 7P	
* CN915	1-568-826-11	SOCKET, CONNECTOR 7P	
CN950	1-764-017-11	HOUSING, CONNECTOR (PC BOARD) 17P	
* CN970	1-568-828-11	SOCKET, CONNECTOR 9P	
* CN980	1-568-830-11	SOCKET, CONNECTOR 11P	
		< DIODE >	
D501	8-719-024-99	DIODE 11ES2-NTA2B	
D502	8-719-024-99	DIODE 11ES2-NTA2B	
D503	8-719-024-99	DIODE 11ES2-NTA2B	
D504	8-719-024-99	DIODE 11ES2-NTA2B	
D505	8-719-987-63	DIODE 1N4148M	
D582	8-719-987-63	DIODE 1N4148M	
D584	8-719-987-63	DIODE 1N4148M	
D586	8-719-987-63	DIODE 1N4148M	
D901	8-719-987-63	DIODE 1N4148M	
D902	8-719-987-63	DIODE 1N4148M	
D903	8-719-987-63	DIODE 1N4148M	
D904	8-719-024-99	DIODE 11ES2-NTA2B	
D905	8-719-024-99	DIODE 11ES2-NTA2B	
D911	8-719-933-54	DIODE HZS9A2L	
D912	8-719-933-54	DIODE HZS9A2L	
		< IC >	
IC101	8-759-098-75	IC HA12171NT	
IC301	8-759-266-35	IC TA8242AK	
IC511	8-759-604-86	IC M5F7807	
IC513	8-759-604-90	IC M5F7907	
IC901	8-759-250-60	IC M50964-261FP	
IC903	8-759-165-82	IC PST600E-T	

Ref. No.	Part No.	Description	Remark
		< COIL >	
L991	1-410-525-11	INDUCTOR 220uH	
		< TRANSISTOR >	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-116-56	TRANSISTOR 2SB1068-L	
Q602	8-729-116-56	TRANSISTOR 2SB1068-L	
Q901	8-729-900-65	TRANSISTOR DTA144ES	
Q902	8-729-900-89	TRANSISTOR DTC144ES	
Q903	8-729-900-89	TRANSISTOR DTC144ES	
Q904	8-729-900-65	TRANSISTOR DTA144ES	
Q905	8-729-900-65	TRANSISTOR DTA144ES	
Q906	8-729-900-89	TRANSISTOR DTC144ES	
Q910	8-729-900-65	TRANSISTOR DTA144ES	
Q911	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
R111	1-249-430-11	CARBON 12K 5% 1/4W	
R112	1-249-431-11	CARBON 15K 5% 1/4W	
R113	1-249-428-11	CARBON 8.2K 5% 1/4W	
R114	1-249-425-11	CARBON 4.7K 5% 1/4W	
R115	1-247-883-00	CARBON 150K 5% 1/4W	
R116	1-247-868-11	CARBON 36K 5% 1/4W	
R120	1-249-431-11	CARBON 15K 5% 1/4W	
R131	1-249-431-11	CARBON 15K 5% 1/4W	
R132	1-249-441-11	CARBON 100K 5% 1/4W	
R133	1-247-887-00	CARBON 220K 5% 1/4W	
R151	1-249-421-11	CARBON 2.2K 5% 1/4W	
R152	1-249-428-11	CARBON 8.2K 5% 1/4W	
R153	1-247-840-00	CARBON 2.4K 5% 1/4W	
R154	1-249-433-11	CARBON 22K 5% 1/4W	
R155	1-249-417-11	CARBON 1K 5% 1/4W	
R210	1-215-451-00	METAL 18K 1% 1/4W	
R211	1-249-430-11	CARBON 12K 5% 1/4W	
R212	1-249-431-11	CARBON 15K 5% 1/4W	
R213	1-249-428-11	CARBON 8.2K 5% 1/4W	
R214	1-249-425-11	CARBON 4.7K 5% 1/4W	
R231	1-249-429-11	CARBON 10K 5% 1/4W	
R232	1-249-429-11	CARBON 10K 5% 1/4W	
R233	1-249-429-11	CARBON 10K 5% 1/4W	
R234	1-249-429-11	CARBON 10K 5% 1/4W	
R235	1-249-429-11	CARBON 10K 5% 1/4W	
R236	1-249-429-11	CARBON 10K 5% 1/4W	
R237	1-249-429-11	CARBON 10K 5% 1/4W	
R238	1-249-429-11	CARBON 10K 5% 1/4W	
R239	1-249-429-11	CARBON 10K 5% 1/4W	
R240	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description			Remark
R241	1-247-864-11	CARBON	24K	5%	1/4W
R251	1-249-421-11	CARBON	2.2K	5%	1/4W
R252	1-249-428-11	CARBON	8.2K	5%	1/4W
R253	1-247-840-00	CARBON	2.4K	5%	1/4W
R254	1-249-433-11	CARBON	22K	5%	1/4W
R255	1-249-417-11	CARBON	1K	5%	1/4W
R301	1-247-807-31	CARBON	100	5%	1/4W
R302	1-247-807-31	CARBON	100	5%	1/4W
R311	1-249-381-11	CARBON	1	5%	1/4W
R312	1-249-381-11	CARBON	1	5%	1/4W
R313	1-249-381-11	CARBON	1	5%	1/4W
R314	1-249-381-11	CARBON	1	5%	1/4W
⚠R501	1-217-371-00	FUSIBLE	0.47	10%	1/4W
⚠R502	1-217-371-00	FUSIBLE	0.47	10%	1/4W
R601	1-249-429-11	CARBON	10K	5%	1/4W
R602	1-249-415-11	CARBON	680	5%	1/4W
R603	1-249-429-11	CARBON	10K	5%	1/4W
R604	1-249-415-11	CARBON	680	5%	1/4W
R911	1-249-425-11	CARBON	4.7K	5%	1/4W
R912	1-249-429-11	CARBON	10K	5%	1/4W
R913	1-249-393-11	CARBON	10	5%	1/4W
R915	1-249-429-11	CARBON	10K	5%	1/4W
R916	1-247-903-00	CARBON	1M	5%	1/4W
R917	1-249-429-11	CARBON	10K	5%	1/4W
R918	1-249-429-11	CARBON	10K	5%	1/4W
R919	1-249-441-11	CARBON	100K	5%	1/4W
R920	1-249-441-11	CARBON	100K	5%	1/4W
R921	1-249-429-11	CARBON	10K	5%	1/4W
R922	1-249-429-11	CARBON	10K	5%	1/4W
R923	1-249-429-11	CARBON	10K	5%	1/4W
R924	1-249-429-11	CARBON	10K	5%	1/4W
R925	1-249-429-11	CARBON	10K	5%	1/4W
R926	1-249-429-11	CARBON	10K	5%	1/4W
R927	1-249-429-11	CARBON	10K	5%	1/4W
R931	1-247-895-00	CARBON	470K	5%	1/4W
R932	1-247-895-00	CARBON	470K	5%	1/4W
R933	1-247-807-31	CARBON	100	5%	1/4W
R934	1-247-807-31	CARBON	100	5%	1/4W
R935	1-249-413-11	CARBON	470	5%	1/4W
R937	1-249-411-11	CARBON	330	5%	1/4W
R938	1-247-807-31	CARBON	100	5%	1/4W
R939	1-247-807-31	CARBON	100	5%	1/4W
R940	1-247-807-31	CARBON	100	5%	1/4W
R941	1-247-811-31	CARBON	150	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-421-11	CARBON	2.2K	5%	1/4W
R951	1-249-429-11	CARBON	10K	5%	1/4W
R952	1-249-425-11	CARBON	4.7K	5%	1/4W
R953	1-249-434-11	CARBON	27K	5%	1/4W
R954	1-249-429-11	CARBON	10K	5%	1/4W
R955	1-249-425-11	CARBON	4.7K	5%	1/4W
R956	1-249-434-11	CARBON	27K	5%	1/4W
		< VARIABLE RESISTOR >			
RV101	1-238-600-11	RES, ADJ, CARBON 10K			
RV201	1-238-600-11	RES, ADJ, CARBON 10K			
		< VIBRATOR >			
X901	1-577-358-21	VIBRATOR, CERAMIC (4 MHz)			

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Ref. No.	Part No.	Description			Remark
*	1-655-022-13	PANEL (A) BOARD ***************			
		< CONNECTOR >			
* CN701	1-568-852-11	SOCKET, CONNECTOR 9P			
		< DIODE >			
D701	8-719-046-42	DIODE SEL5421E-TH8F			
D702	8-719-046-42	DIODE SEL5421E-TH8F			
		< RESISTOR >			
R701	1-247-811-31	CARBON	150	5%	1/4W
R702	1-249-409-11	CARBON	220	5%	1/4W
R703	1-249-418-11	CARBON	1.2K	5%	1/4W
R704	1-249-419-11	CARBON	1.5K	5%	1/4W
R705	1-247-850-11	CARBON	6.2K	5%	1/4W
R706	1-247-858-11	CARBON	13K	5%	1/4W
		< SWITCH >			
S701	1-554-303-21	SWITCH, TACTILE (■)			
S702	1-554-303-21	SWITCH, TACTILE (▷)			
S703	1-554-303-21	SWITCH, TACTILE (◁)			
S704	1-554-303-21	SWITCH, TACTILE (◀◀)			
S705	1-554-303-21	SWITCH, TACTILE (▶▶)			
S750	1-571-298-11	SWITCH, SLIDE (DOLBY NR)			
S751	1-571-296-11	SWITCH, SLIDE (DIRECTION MODE)			

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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

PANEL (B) POWER 1

Ref.No.	Part No.	Description	Remark
*	1-655-023-13	PANEL (B) BOARD ***************	
		< CONNECTOR >	
* CN801	1-568-854-11	SOCKET, CONNECTOR 11P	
		< DIODE >	
D801	8-719-046-46	DIODE SEL5221S-TH8F	
D802	8-719-046-38	DIODE SEL5821A-TH8F	
D803	8-719-046-42	DIODE SEL5421E-TH8F	
D804	8-719-046-42	DIODE SEL5421E-TH8F	
D805	8-719-046-38	DIODE SEL5821A-TH8F	
D806	8-719-046-46	DIODE SEL5221S-TH8F	
		< RESISTOR >	
R801	1-247-811-31	CARBON 150 5% 1/4W	
R802	1-249-409-11	CARBON 220 5% 1/4W	
R803	1-249-411-11	CARBON 330 5% 1/4W	
R804	1-249-411-11	CARBON 330 5% 1/4W	
R805	1-249-413-11	CARBON 470 5% 1/4W	
R806	1-249-415-11	CARBON 680 5% 1/4W	
R807	1-249-417-11	CARBON 1K 5% 1/4W	
R808	1-249-426-11	CARBON 5.6K 5% 1/4W	
		< SWITCH >	
S801	1-554-303-21	SWITCH, TACTILE (■)	
S802	1-554-303-21	SWITCH, TACTILE (❚❚)	
S803	1-554-303-21	SWITCH, TACTILE (▷)	
S804	1-554-303-21	SWITCH, TACTILE (◁)	
S805	1-554-303-21	SWITCH, TACTILE (◀◀)	
S806	1-554-303-21	SWITCH, TACTILE (▶▶)	
S807	1-554-303-21	SWITCH, TACTILE (● REC)	
S808	1-554-303-21	SWITCH, TACTILE (HI-SPEED DUBBING)	
S809	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO)	

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Ref.No.	Part No.	Description	Remark
*	1-655-415-13	POWER 1 BOARD *************	
		< IC >	
IC512	8-759-604-90	IC M5F7907	
IC551	8-759-231-53	IC M5F7805	
IC552	8-759-231-53	IC M5F7805	

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Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS *************	
7	1-769-664-11	WIRE (FLAT TYPE) (9 CORE)	
8	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
12	1-590-488-11	WIRE, FLAT TYPE (11 CORE)	
HP101	A-2003-757-A	BASE ASSY, HEAD (DECK A)	
HRPE101	A-2003-930-A	BASE ASSY, HEAD (DECK B)	
M101A	X-3363-501-2	MOTOR ASSY (REEL) (DECK A)	
M101B	X-3363-501-2	MOTOR ASSY (REEL) (DECK B)	
M102A	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK A)	
M102B	X-3365-377-2	MOTOR ASSY (CAPSTAN) (DECK B)	

****

****

HARDWARE LIST

****

Ref.No.	Part No.	Description	Remark
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-682-548-04	SCREW +BVTT 3X8 (S)	
#3	7-627-556-08	SCREW +P 2.6X2.8	
#4	7-621-775-00	SCREW +B 2.6X3	

English
95C0586-1
Printed in Japan
© 1995. 3

Sony Corporation
Consumer A&V Products Company
Home A&V Products Div.

Published by Home A&V Products Div.
Quality Engineering Dept.

STR-N500/N600

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
STR-N500/N600
PX Model
STR-N500

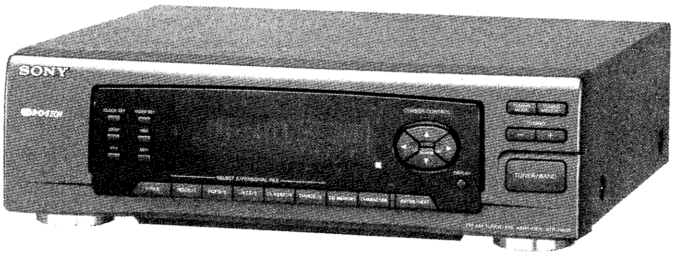


Photo: STR-N600

STR-N500/N600 are tuner and amplifier section in LBT-N500, LBT-N550, LBT-N550P, LBT-N600AV and LBT-N650AV.

SPECIFICATIONS

System	FM stereo FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 - 108.0 MHz
Aerial	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range
- Latin American models:
  - AM: 530 - 1,710 kHz
- German and Italian models:
  - AM: 531 - 1,602 kHz
- Other European models:
  - MW: 531 - 1,602 kHz
  - LW: 153 - 279 kHz
- Other models:
  - AM: 531 - 1,602 kHz

Aerial	AM loop aerial External aerial terminals
Intermediate frequency	450 kHz

Input	Jack type
AUX	Phono
PHONO (MM)	Phono

input	Sensitivity	Impedance
AUX	245 mV	47 kilohms
PHONO (MM)	3.3 mV	47 kilohms

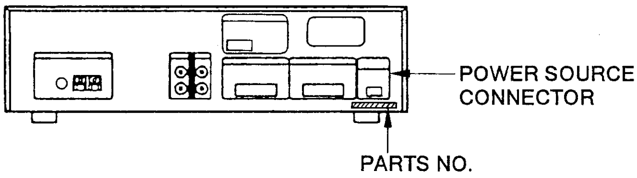
Weight	Approx. 2.6 kg
Dimensions	Approx. 355 x 105 x 315 mm (w/h/d, including projections)

FM-AM TUNER/PRE-AMPLIFIER

SONY®

MODEL IDENTIFICATION

– BACK PANEL –



	PARTS NO.	NOTE
N500: UK Model	4-969-784-0☐	With power source connector for PS-LX56P
N500: AEP, German, Italian Model	4-969-784-1☐	
N500: East European, CIS Model	4-969-784-2☐	
N500: E Model	4-970-163-0☐	With power source connector for PS-LX56P
N500: Mexican, Australian, PX Model	4-970-163-1☐	
N500: Argentine Model	4-970-163-4☐	
N500: AEP 2 Model	4-973-530-0☐	AEP model with power source connector for PS-LX56P
N600: AEP, UK, German, Italian Model	4-969-784-4☐	
N600: East European, CIS Model	4-969-784-5☐	
N600: E Model	4-970-163-5☐	
N600: Australian Model	4-970-163-6☐	

TABLE OF CONTENTS

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– Tuner, Main Section – ·················· 13
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

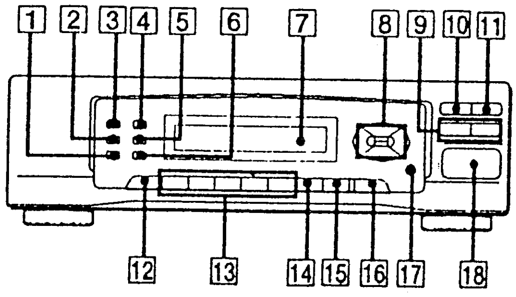
SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

Front Panel

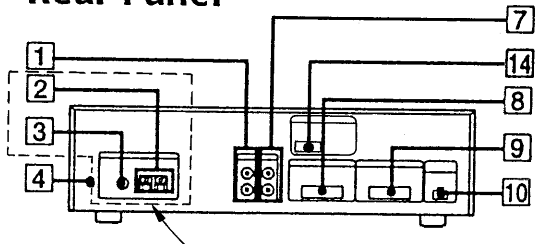
Tuner / Preamplifier (STR-N500/N600)



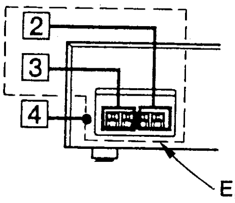
1 PTY button (*)
2 DAILY button
3 CLOCK SET button
4 TIMER SET button
5 REC button
6 EON button (*)
7 Display window
8 CURSOR CONTROL keys
9 TUNING (+/–) buttons
10 TUNING MODE button
11 TUNING MEMORY button
12 P.FILE button
13 SELECT 5/PERSONAL FILE buttons
14 EQ MEMORY button
15 CHARACTER button
16 ENTER/NEXT button
17 DISPLAY button
18 TUNER/BAND button

*: AEP, UK, German, Italian, East European ONLY.

Rear Panel



AEP, AEP2, UK, German, Italian, East European, CIS model



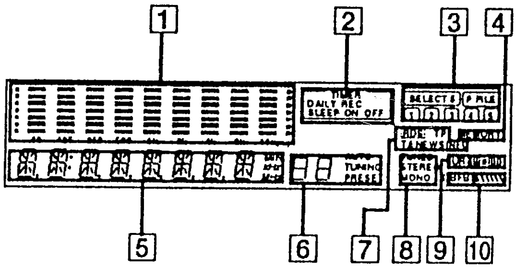
E, Australian, Argentine, Mexican, PX model

1 PHONO IN jacks
2 AM terminal
3 FM 75Ω terminal
4 ⏚ ground terminal
7 AUX IN jacks
8 SYSTEM CONTROL 1 terminals
9 SYSTEM CONTROL 2 terminals
10 POWER SOURCE terminal (only for the model supplied with a turntable) (N500: AEP2, UK, E ONLY)
14 SYSTEM CONTROL 3 terminals (N600 ONLY)

*AEP: AEP model without power source for PS-LX56P.
AEP2: AEP model with power source for PS-LX56P.

Display Window

Tuner / Preamplifier (STR-N500/N600)



1 Spectrum analyser
2 TIMER DAILY/REC/SLEEP/ON/OFF indications
3 SELECT 5/P.FILE indications
4 MEMORY indication
5 Frequency/Station name/Function indications
6 AUTO/TUNING/PRESET indications
7 RDS indications
8 Tuner indications
9 SURROUND indication
10 DBFB indication

SECTION 2
ELECTRICAL ADJUSTMENTS

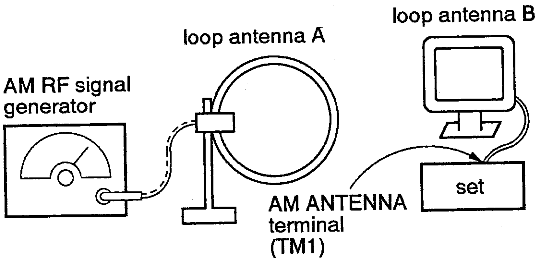
Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

The FM TUNED level must be adjusted after the AM TUNED level adjustment has completed.

0 dB=1 μV

AM Section Adjustment

Setting:


loop antenna B
loop antenna A
AM RF signal generator
set
AM ANTENNA terminal (TM1)

Carrier frequency: 999 kHz (except E model)
: 1,000 kHz (E model)
Modulation: 400 Hz, 30% modulation

AM tuned Level Adjustment

Band: AM

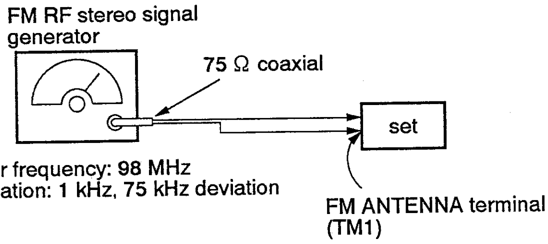
Procedure:

1. Set loop antenna A so that the loop antenna B input level becomes 316 μV (50 dBμ).
2. Tune the set to 999 kHz (except E model) or 1,000 kHz (E model).
3. Adjust RV1 so that the TUNED indicator goes on.

Adjustment Location: main board

FM Section Adjustment

Setting:


FM RF stereo signal generator
75 Ω coaxial
set
FM ANTENNA terminal (TM1)

Carrier frequency: 98 MHz
Modulation: 1 kHz, 75 kHz deviation

FM Tuned Level Adjustment

Band: FM

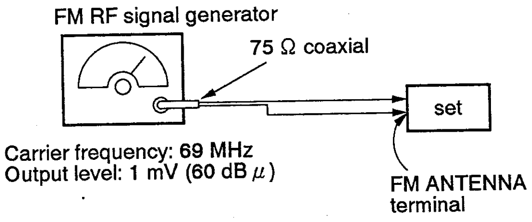
Procedure:

1. Supply a 17.8 μV (25 dBμ) 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV2 so that the TUNED indicator goes on.

Adjustment Location: main board

FM POLAR Adjustment

Setting:
Band: FM

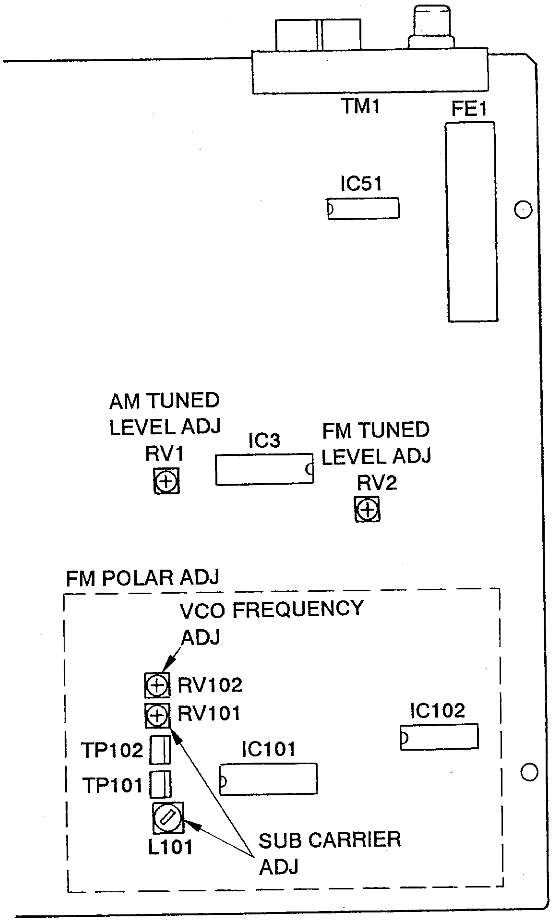

FM RF signal generator
75 Ω coaxial
set
FM ANTENNA terminal

Carrier frequency: 69 MHz
Output level: 1 mV (60 dBμ)

1. Connect the frequency counter to the TP102 and adjust the RV102 for a frequency of 31.25 kHz ± 50 Hz.
2. Connect the VTVM to the TP101, receive the signal of 69 MHz ± 1 kHz (1 kHz dev.) and adjust the reading of the VTVM to 0 dB.
3. Set the modulation frequency of the FM RF signal generator to 31.25 kHz (10 kHz dev.) and adjust the L101 so that the reading of the VTVM is 0 dB.
4. Adjust the RV101 so that the reading of the VTVM to 14 dB.
5. Check that the separation between Pins ④ and ⑭ of the IC102 is more than 18 dB.

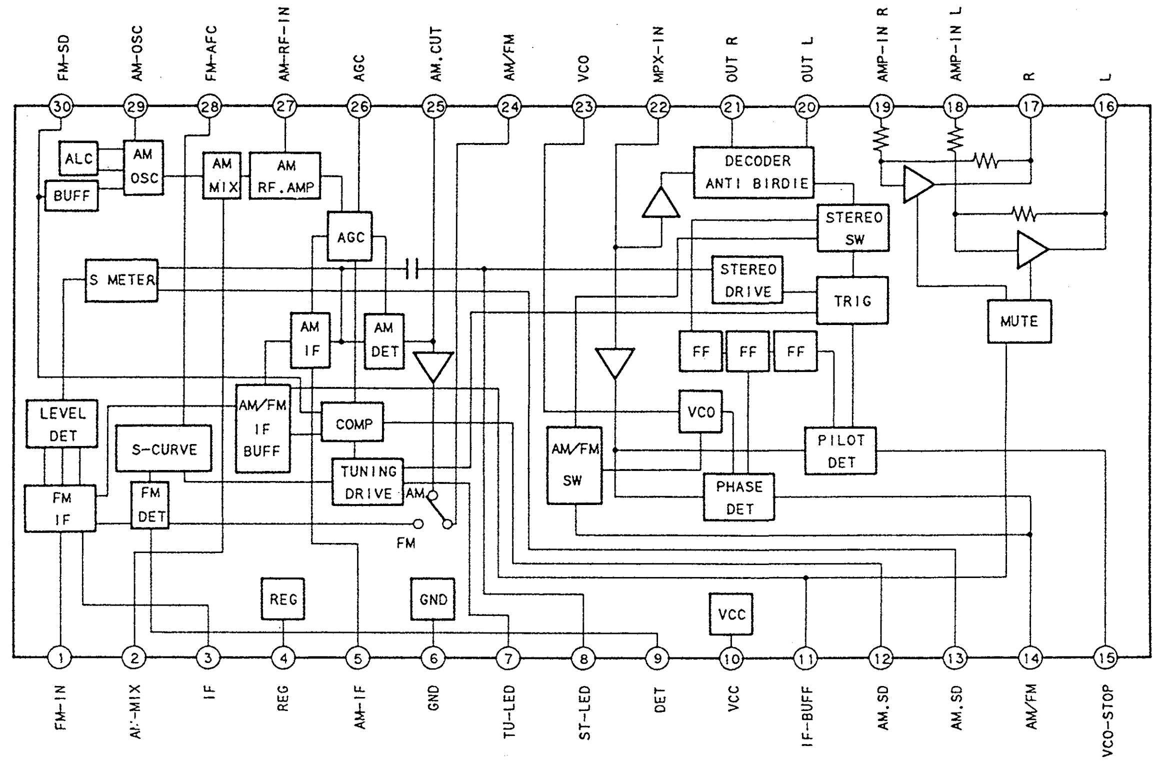
Adjustment Location: main board

[MAIN BOARD] (Component Side)

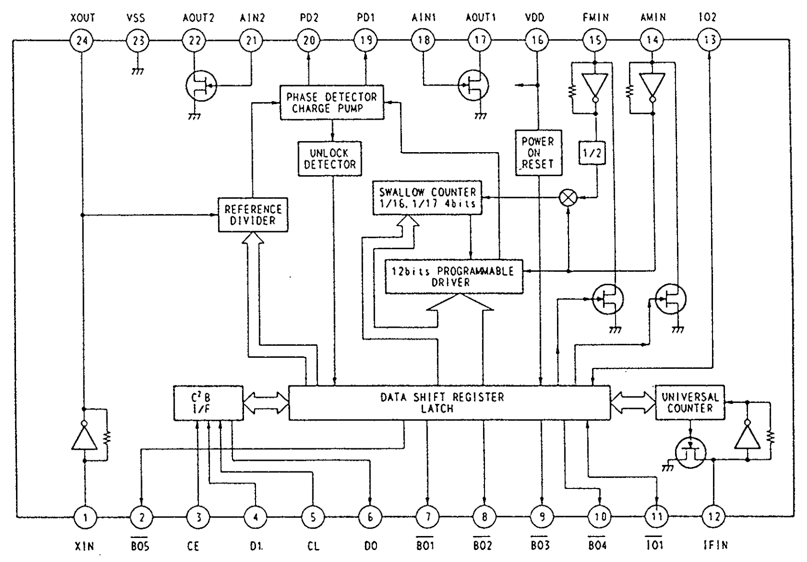

TM1
FE1
IC51
AM TUNED LEVEL ADJ RV1
IC3
FM TUNED LEVEL ADJ RV2
FM POLAR ADJ
VCO FREQUENCY ADJ
RV102
RV101
IC102
TP102
TP101
IC101
L101
SUB CARRIER ADJ

- **IC Block Diagrams**

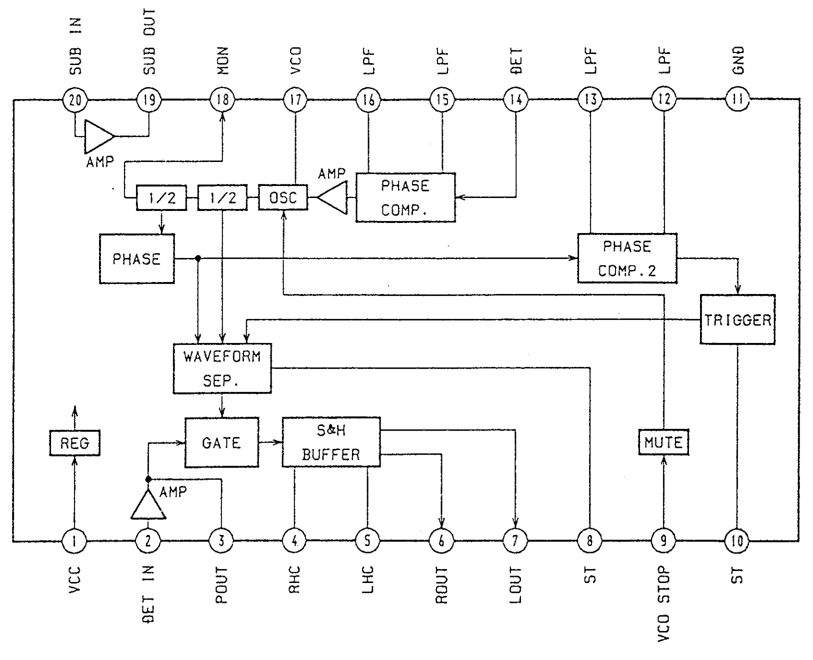
IC3 LA1835


FM-SD
AM-OSC
FM-AFC
AM-RF-IN
AGC
AM.OUT
AM/FM
VCO
MPX-IN
OUT R
OUT L
AMP-IN R
AMP-IN L
R
L
ALC
BUFF
AM OSC
AM MIX
AM RF.AMP
AGC
DECODER
ANTI BIRDIE
STEREO SW
S METER
STEREO DRIVE
TRIG
MUTE
AM IF
AM DET
LEVEL DET
S-CURVE
AM/FM IF BUFF
COMP
TUNING DRIVE
FM
FM IF
FM DET
AM/FM SW
VCO
PHASE DET
PILOT DET
FF
REG
GND
VCC
FM-IN
AM-MIX
IF
REG
AM-IF
GND
TU-LED
ST-LED
DET
VCC
IF-BUFF
AM.SD
AM.SD
AM/FM
VCO-STOP

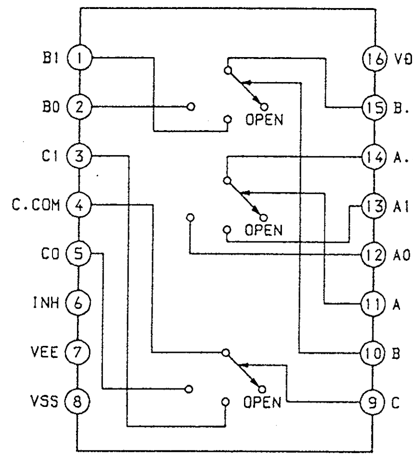
IC51 LC72130


XOUT
VSS
AOUT2
AIN2
PD2
PD1
AIN1
AOUT1
VDD
FMIN
AMIN
IO2
PHASE DETECTOR CHARGE PUMP
UNLOCK DETECTOR
SWALLOW COUNTER 1/16, 1/17 4bits
POWER ON RESET
REFERENCE DIVIDER
12bits PROGRAMMABLE DRIVER
DATA SHIFT REGISTER LATCH
UNIVERSAL COUNTER
XIN
BO5
CE
DI
CL
DO
BO1
BO2
BO3
BO4
IO1
IFIN

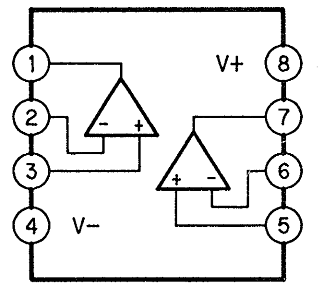
IC101 IR3R42


SUB IN
SUB OUT
MON
VCO
LPF
LPF
DET
LPF
LPF
GND
AMP
1/2
1/2
OSC
AMP
PHASE COMP.
PHASE
PHASE COMP.2
TRIGGER
WAVEFORM SEP.
REG
GATE
S&H BUFFER
MUTE
AMP
VCC
DET IN
POUT
RHC
LHC
ROUT
LOUT
ST
VCO STOP
ST

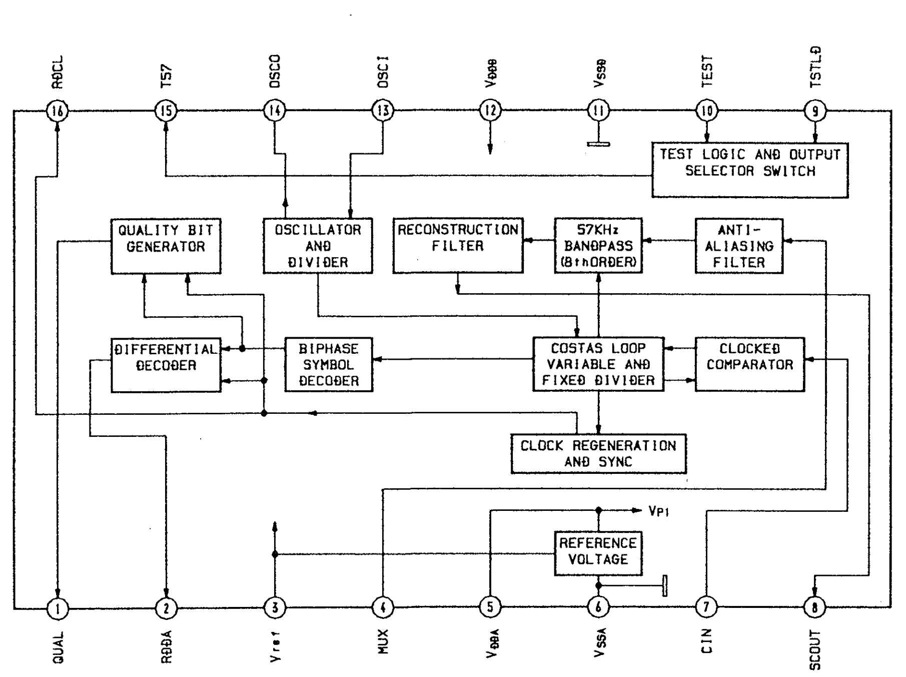
IC102 μPD4053BC


B1
B0
C1
C.COM
C0
INH
VEE
VSS
VDD
B.COM
A.COM
A1
A0
A
B
C
OPEN
OPEN
OPEN

IC201 M5218AP

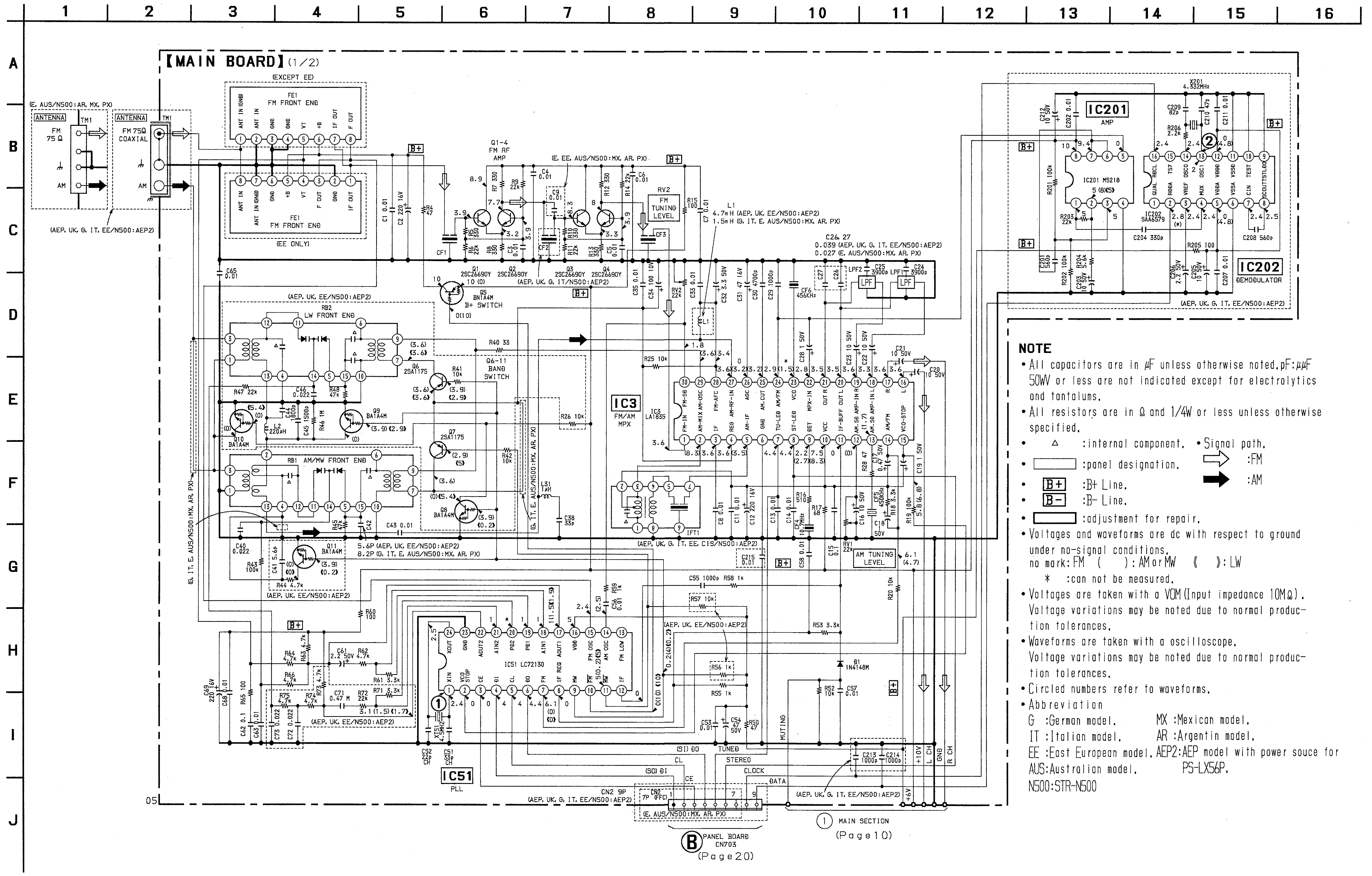


IC202 SAA6579


RACL
TEST LOGIC AND OUTPUT SELECTOR SWITCH
QUALITY BIT GENERATOR
OSCILLATOR AND DIVIDER
RECONSTRUCTION FILTER
57kHz BANDPASS (8th ORDER)
ANTI-ALIASING FILTER
DIFFERENTIAL DECODER
BIPHASE SYMBOL DECODER
COSTAS LOOP VARIABLE AND FIXED DIVIDER
CLOCKED COMPARATOR
CLOCK REGENERATION AND SYNC
REFERENCE VOLTAGE
QUAL
RDDA
Vref
MUX
VDDA
VSSA
CIN
SCOUT

SECTION 3
DIAGRAMS

3-1. SCHEMATIC DIAGRAM – TUNER SECTION – • **EXCEPT CIS model**


[MAIN BOARD] (1/2)
FE1 FM FRONT END
IC201 AMP
IC202 DEMODULATOR
IC3 FM/AM MPX
IC51 PLL
RB2 LW FRONT END
RB1 AM/MW FRONT END
RV2 FM TUNING LEVEL
AM TUNING LEVEL
B+ SWITCH
BAND SWITCH
PANEL BOARD CN703 (Page20)
MAIN SECTION (Page10)
(AEP, UK, G, IT, EE/N500:AEP2)

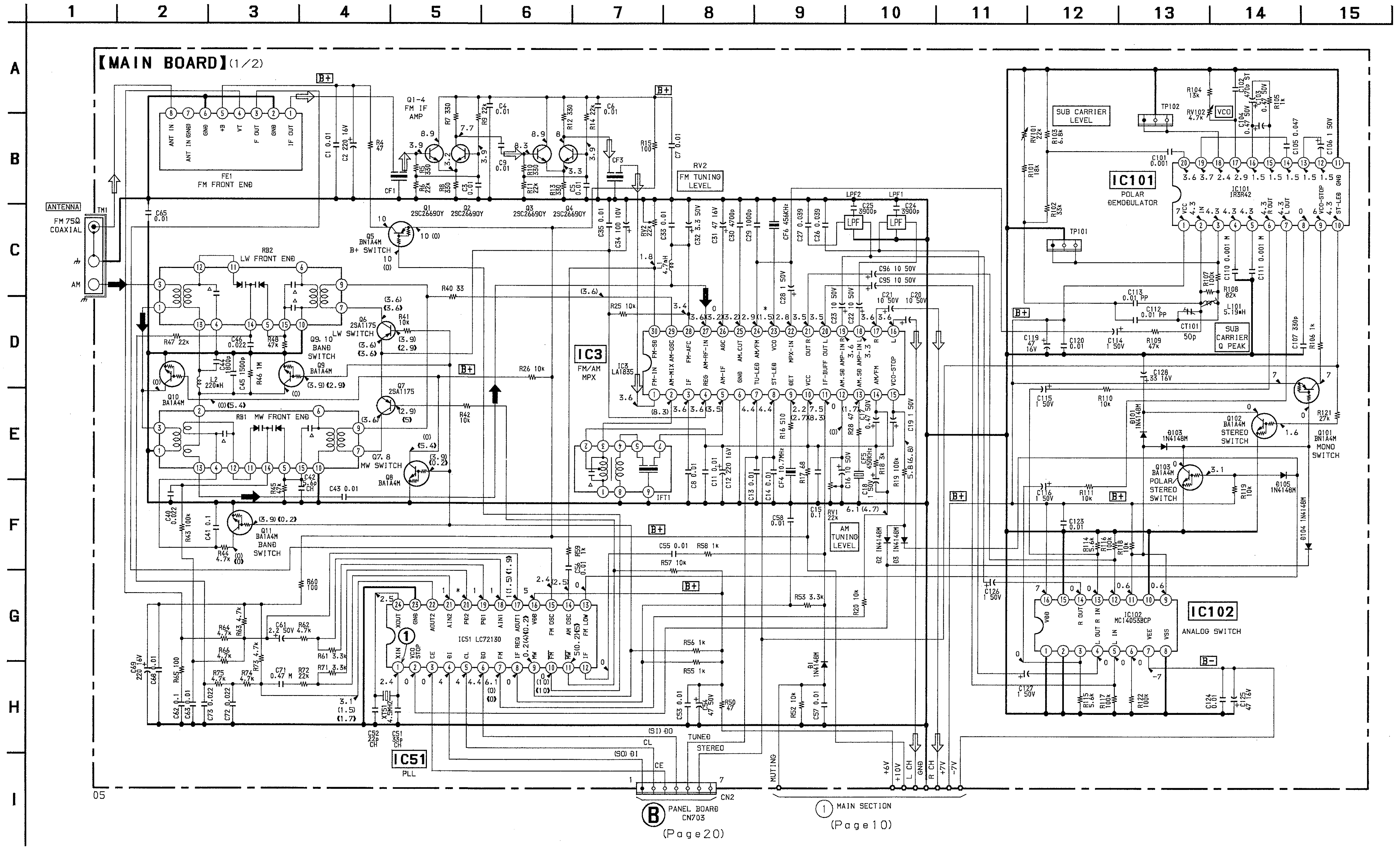
NOTE

- All capacitors are in μF unless otherwise noted.pF:μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ▭ :panel designation.
- B+ :B+ Line.
- B– :B– Line.
- ▭ :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark:FM ( ):AM or MW 《 》:LW
  * :can not be measured.
- Voltages are taken with a VOM(Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Abbreviation

G :German model.	MX :Mexican model.
IT :Italian model.	AR :Argentin model.
EE :East European model.	AEP2:AEP model with power souce for PS-LX56P.
AUS:Australian model.	
N500:STR-N500	

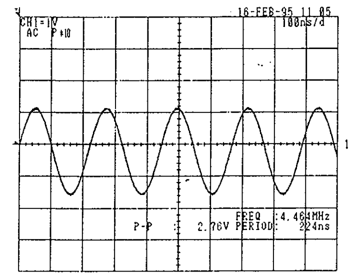
- Signal path.
  ⇨ :FM
  ➡ :AM

- **CIS model**

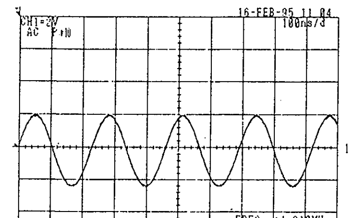

[MAIN BOARD] (1/2)
FE1 FM FRONT END
RB2 LW FRONT END
RB1 MW FRONT END
IC3 FM/AM MPX
IC51 PLL
IC101 POLAR DEMODULATOR
IC102 ANALOG SWITCH
RV2 FM TUNING LEVEL
AM TUNING LEVEL
SUB CARRIER LEVEL
STEREO SWITCH
MONO SWITCH
PANEL BOARD CN703 (Page20)
MAIN SECTION (Page10)

- **Waveforms**

① IC51 ① 2.8 Vp-p 4.5 MHz

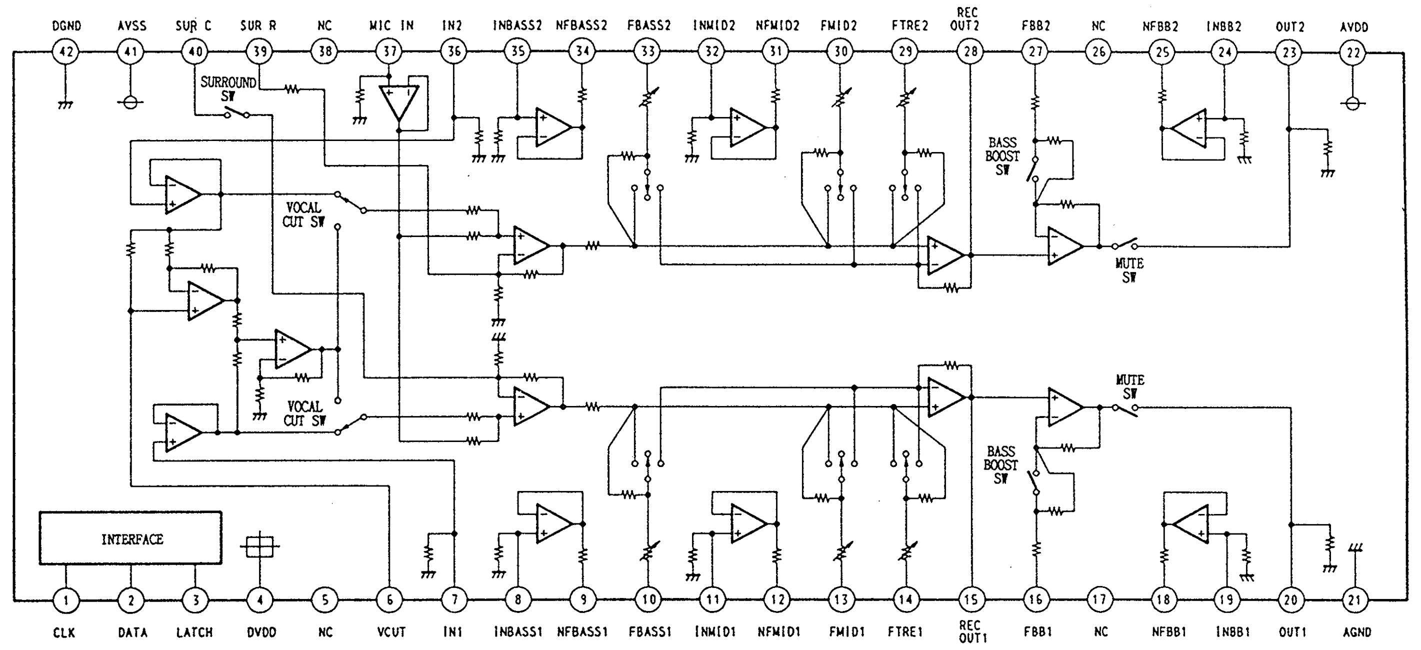


② IC202 ⑬ 4.5 Vp-p 4.332 MHz

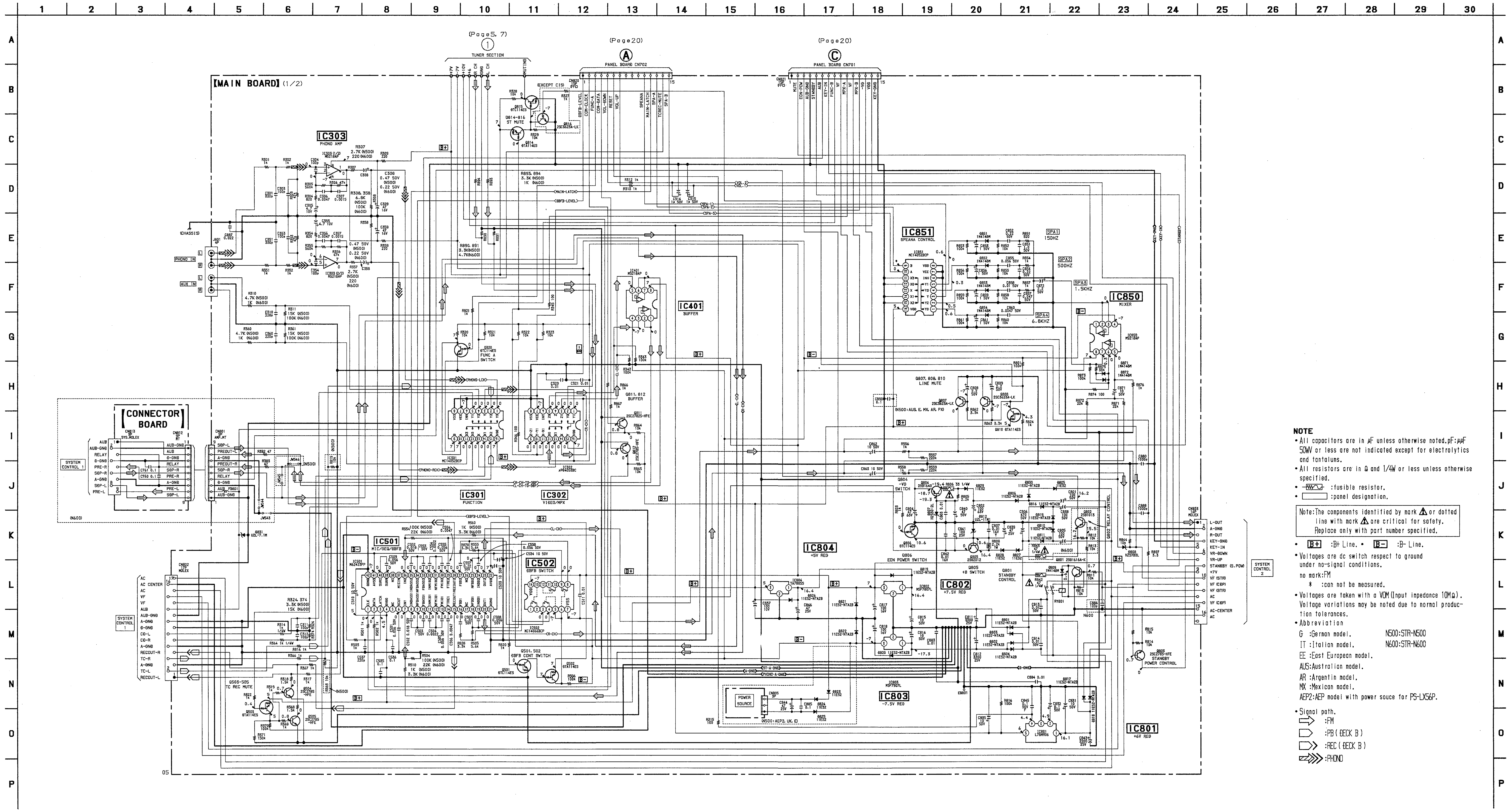


- IC Block Diagram

IC501 M62423FP


DGND
AVSS
SUB C
SUR R
NC
MIC IN
IN2
INBASS2
NFBASS2
FBASS2
INMID2
NFMID2
FMID2
FTRE2
REC OUT2
FBB2
NC
NFBB2
INBB2
OUT2
AVDD
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
SURROUND SW
VOCAL CUT SW
BASS BOOST SW
MUTE SW
VOCAL CUT SW
MUTE SW
BASS BOOST SW
INTERFACE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
CLK
DATA
LATCH
DVDD
NC
VCUT
IN1
INBASS1
NFBASS1
FBASS1
INMID1
NFMID1
FMID1
FTRE1
REC OUT1
FBB1
NC
NFBB1
INBB1
OUT1
AGND

3-2. SCHEMATIC DIAGRAM – MAIN SECTION –


1
2
3
4
5
6
7
8
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11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
(Page5, 7)
1
TUNER SECTION
(Page20)
A
PANEL BOARD CN702
(Page20)
C
PANEL BOARD CN701
[MAIN BOARD] (1/2)
IC303
PHONO AMP
IC851
SPEANA CONTROL
IC850
MIXER
IC401
BUFFER
[CONNECTOR BOARD]
SYSTEM CONTROL 1
IC301
FUNCTION
IC302
VIDEO/MPX
IC501
IC502
IC804
+5V REG
IC802
+7.5V REG
IC803
-7.5V REG
IC801
+6V REG
SYSTEM CONTROL 1
SYSTEM CONTROL 2
POWER SOURCE

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ⏛ : fusible resistor.
- ☐ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

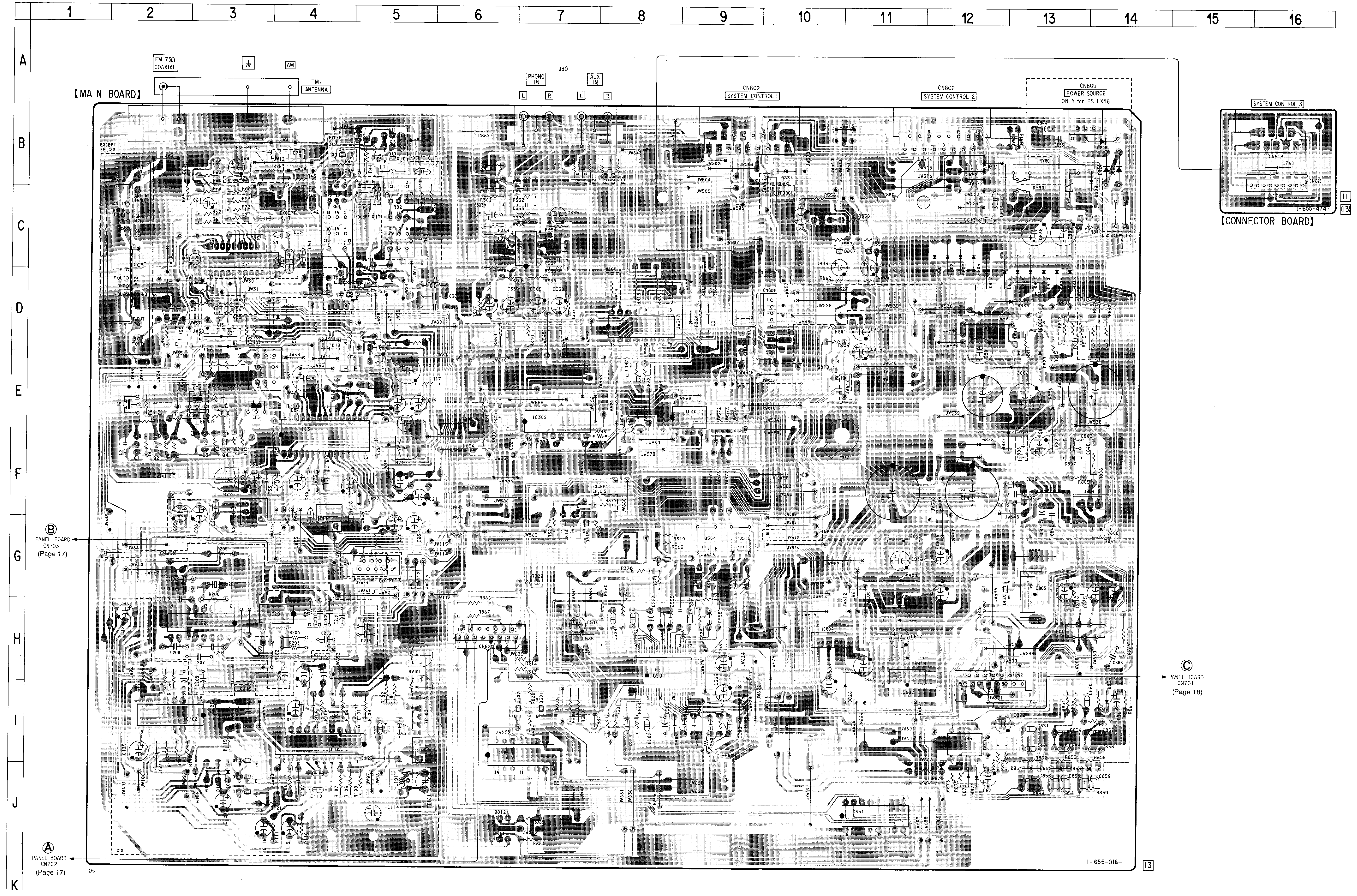
- **B+** : B+ Line.
- **B−** : B- Line.
- Voltages are dc switch respect to ground under no-signal conditions.
  no mark: FM
  * : can not be measured.
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Abbreviation

G	:German model.	N500:STR-N500
IT	:Italian model.	N600:STR-N600
EE	:East European model.	
AUS	:Australian model.	
AR	:Argentin model.	
MX	:Mexican model.	
AEP2	:AEP model with power souce for PS-LX56P.	

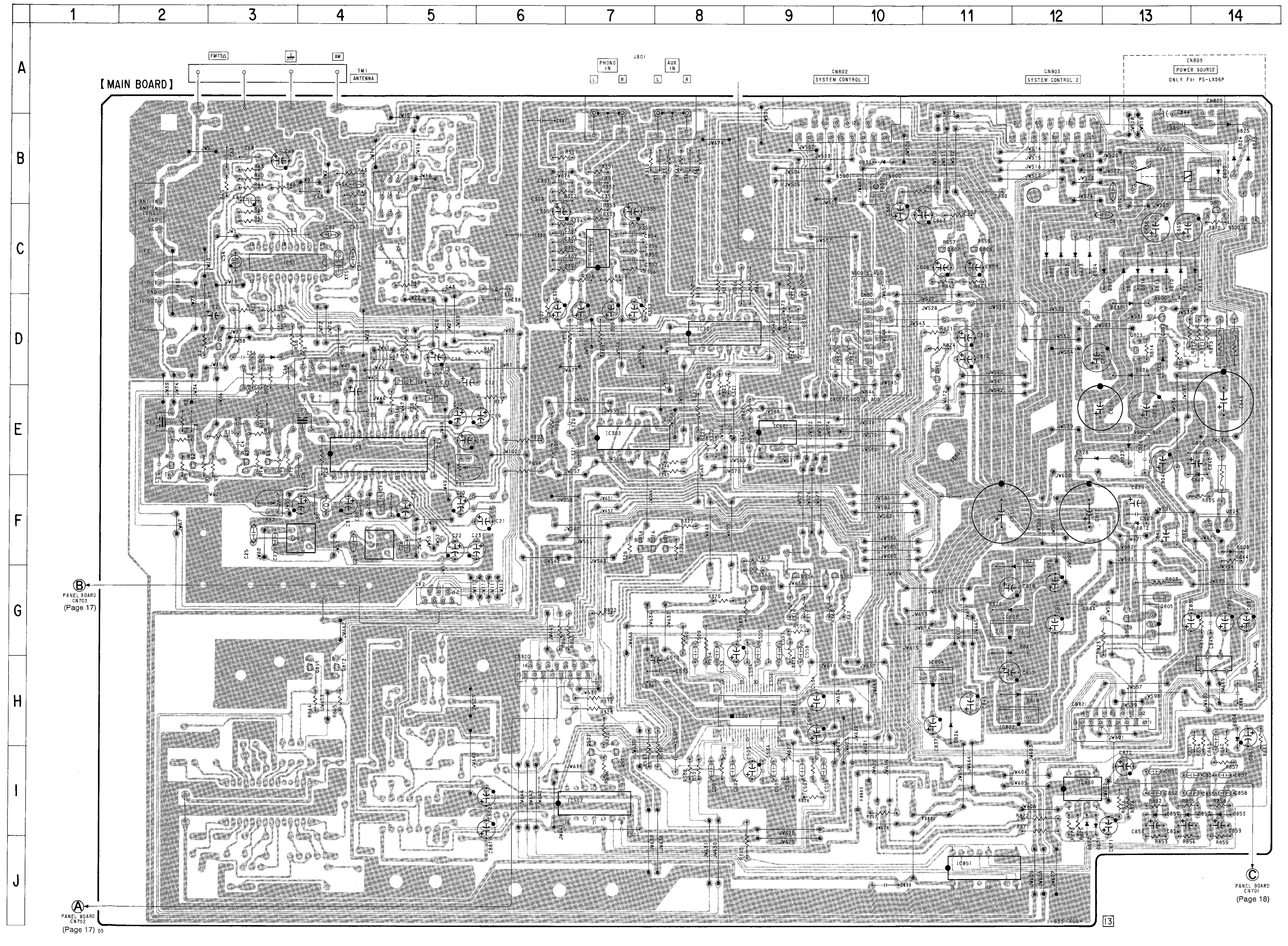
- Signal path.
  ⇨ : FM
  ▷ : PB (DECK B)
  ▷> : REC (DECK B)
  ⇛ : PHONO

3-3. PRINTED WIRING BOARDS – TUNER, MAIN SECTION –

- AEP, AEP2, UK, German, Italian, East European, CIS model (TYPE A)


[MAIN BOARD]
[CONNECTOR BOARD]
FM 75Ω COAXIAL
AM
TM1 ANTENNA
PHONO IN
AUX IN
J801
CN802 SYSTEM CONTROL 1
CN803 SYSTEM CONTROL 2
CN805 POWER SOURCE ONLY for PS-LX56
SYSTEM CONTROL 3
Ⓑ PANEL BOARD CN703 (Page 17)
Ⓒ PANEL BOARD CN701 (Page 18)
Ⓐ PANEL BOARD CN702 (Page 17)
1-655-018-
1-655-674-
13

- E, Australian, Mexican, PX, Argentine model (TYPE B)


[MAIN BOARD]
FM 75Ω
AM
TM1 ANTENNA
PHONO IN
AUX IN
J801
CN802 SYSTEM CONTROL 1
CN803 SYSTEM CONTROL 2
CN805 POWER SOURCE ONLY for PS-LX56P
Ⓑ PANEL BOARD CN703 (Page 17)
Ⓒ PANEL BOARD CN701 (Page 18)
Ⓐ PANEL BOARD CN702 (Page 17)
13

- **Semiconductor Location**

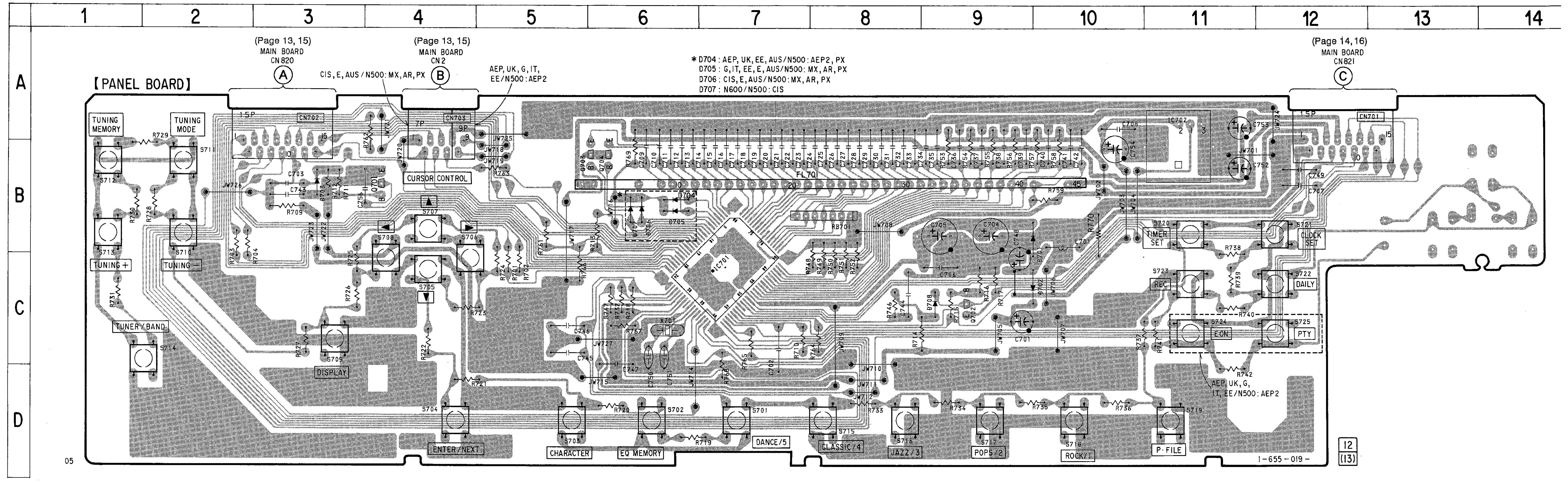
Ref. No.	Location	Ref. No.	Location
D1	D-3	IC302	E-7
D2	D-4(TYPE A)	IC303	C-7
D3	D-3(TYPE A)	IC401	E-9
D101	I-3(TYPE A)	IC501	H-8
D103	I-3(TYPE A)	IC502	I-6
D104	I-3(TYPE A)	IC801	H-14
D105	I-3(TYPE A)	IC802	H-11
D801	C-12	IC803	G-11
D802	C-12	IC804	H-10(TYPE A)
D803	C-12	IC804	H-11(TYPE B)
D804	C-12	IC850	I-12
D805	C-13	IC851	J-11
D806	D-13		
D807	E-13	Q1	E-2
D808	F-14	Q2	E-2
D809	B-14	Q3	E-3(TYPE A)
D810	C-13	Q4	E-3(TYPE A)
D811	F-13	Q5	D-2(TYPE A)
D812	F-13	Q5	D-3(TYPE B)
D815	C-12(TYPE A)	Q6	C-5(TYPE A)
D815	C-13(TYPE B)	Q7	D-4(TYPE A)
D816	C-13	Q8	B-5(TYPE A)
D817	C-12(TYPE A)	Q9	B-4(TYPE A)
D817	C-13(TYPE B)	Q10	B-5(TYPE A)
D818	C-13(TYPE A)	Q11	B-5(TYPE A)
D818	C-14(TYPE B)	Q101	I-3(TYPE A)
D819	H-11	Q102	J-3(TYPE A)
D820	G-11	Q103	I-3(TYPE A)
D821	G-11	Q320	D-8
D822	F-11(TYPE A)	Q501	H-7
D822	F-12(TYPE B)	Q502	H-7
D823	B-14	Q503	G-8
D824	B-14	Q504	G-9
D825	B-14	Q505	G-9
D826	H-11	Q801	C-14
D827	E-13	Q802	D-13
D829	D-13	Q803	D-13
D830	D-13	Q804	F-14
D831	B-10	Q805	G-13
D851	I-13	Q806	G-13
D852	I-13	Q807	C-10(TYPE A)
D853	I-14	Q807	C-11(TYPE B)
D854	H-14	Q808	C-11
D872	I-12	Q810	D-10
		Q811	J-6(TYPE A)
IC3	E-4	Q811	H-4(TYPE B)
IC51	C-3	Q812	J-6(TYPE A)
IC101	I-4(TYPE A)	Q812	H-4(TYPE B)
IC102	I-2	Q814	F-7
IC201	G-3(TYPE A)	Q815	F-7(TYPE A)
IC202	G-2	Q815	F-8(TYPE B)
IC301	D-8	Q816	F-7

Note:

- ○——— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation

G : German
IT : Italian
AUS : Australian
EE : East European
MX : Mexican
AR : Argentine
AEP2 : AEP model with power source for PS-LX56P.
N500: STR-N500 N600: STR-N600

3-4. PRINTED WIRING BOARD – PANEL SECTION –


【PANEL BOARD】
(Page 13, 15)
MAIN BOARD
CN820
Ⓐ
(Page 13, 15)
MAIN BOARD
CN2
Ⓑ
CIS, E, AUS/N500: MX, AR, PX
AEP, UK, G, IT, EE/N500: AEP2
(Page 14, 16)
MAIN BOARD
CN821
Ⓒ
* D704 : AEP, UK, EE, AUS/N500: AEP2, PX
D705 : G, IT, EE, E, AUS/N500: MX, AR, PX
D706 : CIS, E, AUS/N500: MX, AR, PX
D707 : N600/N500: CIS
TUNING MEMORY
TUNING MODE
TUNING +
TUNING –
TUNER/BAND
CURSOR CONTROL
DISPLAY
ENTER/NEXT
CHARACTER
EQ MEMORY
DANCE/5
CLASSIC/4
JAZZ/3
POPS/2
ROCK/1
P. FILE
TIMER SET
CLOCK SET
DAILY
PTY
EON
REC
FL701
CN702
CN703
CN701
1-655-019-
12 (13)

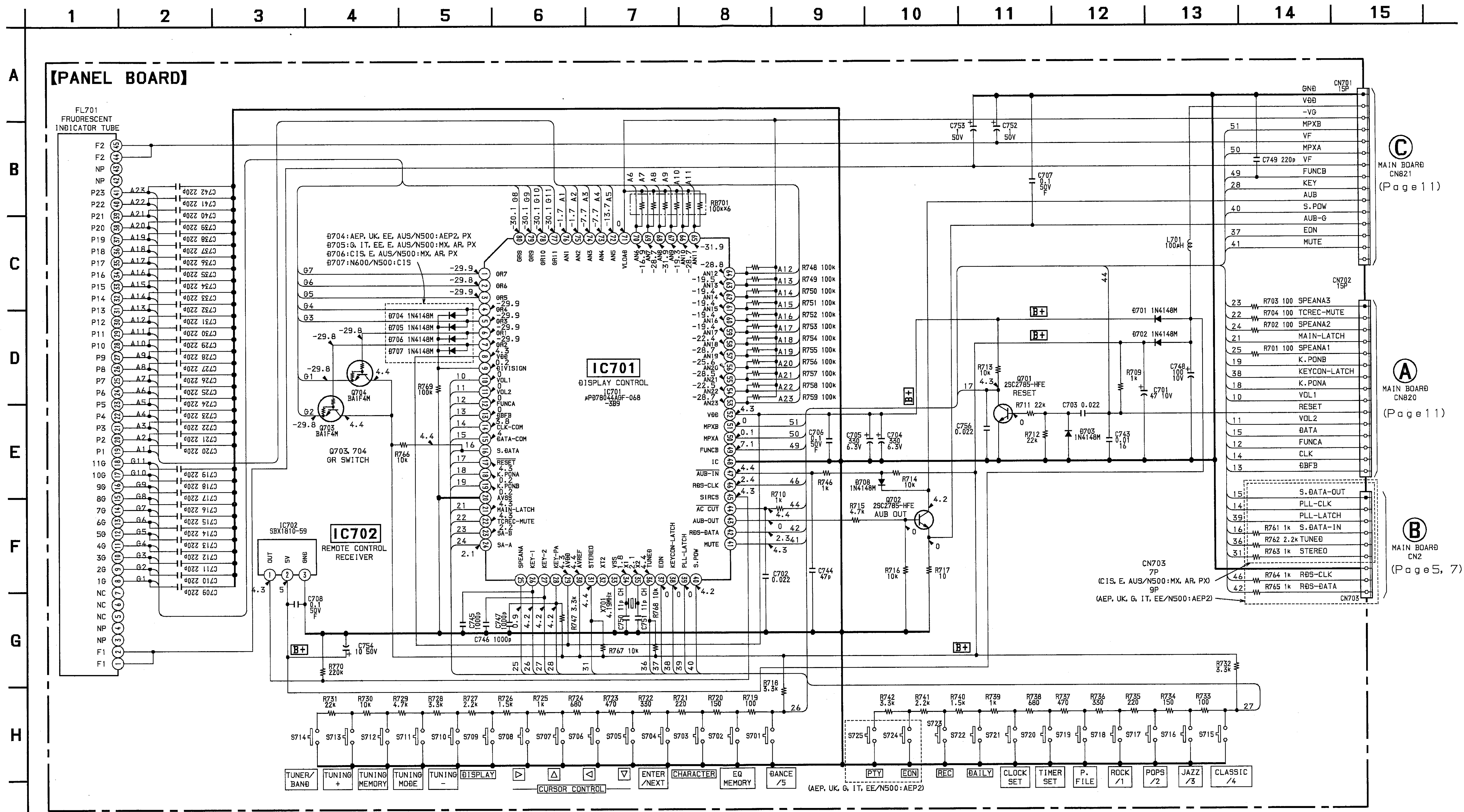
- **Semiconductor Location**

Ref. No.	Location
D701	B-10
D702	B-10
D703	B-3
D704	B-6
D705	B-6
D706	B-6
D707	B-6
D708	C-9
IC701	C-7
IC702	A-11
Q701	B-4
Q702	C-9
Q703	B-6
Q704	B-6

Note:

- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ▨ : Pattern from the side which enables seeing.
- Abbreviation
  G : German
  IT : Italian
  AUS : Australian
  EE : East European
  MX : Mexican
  AR : Argentine
  AEP2 : AEP model with power source for PS-LX56P.
  N500: STR-N500 N600: STR-N600

3-5. SCHEMATIC DIAGRAM – PANEL SECTION –


【PANEL BOARD】
FL701
FLUORESCENT
INDICATOR TUBE
IC701
DISPLAY CONTROL
IC702
REMOTE CONTROL
RECEIVER
Q703, 704
OR SWITCH
Q701
2SC2785-HFE
RESET
Q702
2SC2785-HFE
AUB OUT
D704: AEP, UK, EE, AUS/N500: AEP2, PX
D705: G, IT, EE, E, AUS/N500: MX, AR, PX
D706: CIS, E, AUS/N500: MX, AR, PX
D707: N600/N500: CIS
CN703
7P
(CIS, E, AUS/N500: MX, AR, PX)
9P
(AEP, UK, G, IT, EE/N500: AEP2)
Ⓐ
MAIN BOARD
CN820
(Page 11)
Ⓑ
MAIN BOARD
CN2
(Page 5, 7)
Ⓒ
MAIN BOARD
CN821
(Page 11)
B+
TUNER/BAND
TUNING +
TUNING MEMORY
TUNING MODE
TUNING –
DISPLAY
CURSOR CONTROL
ENTER/NEXT
CHARACTER
EQ MEMORY
DANCE/5
PTY
EON
(AEP, UK, G, IT, EE/N500: AEP2)
REC
DAILY
CLOCK SET
TIMER SET
P. FILE
ROCK/1
POPS/2
JAZZ/3
CLASSIC/4

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ▭ :panel designation.

- B+ :B+ Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark:
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

- Abbreviation
  G :German model. N500:STR-N500
  IT :Italian model. N600:STR-N600
  EE :East European model.
  AUS:Australian model.
  MX:Mexican model
  AR:Argentin model.
  AEP2:AEP model with power source for PS-LX56P

3-6. IC PIN FUNCTION DESCRIPTION

DISPLAY BOARD IC701 μPD78044AGF-068-3B9 (DISPLAY CONTROL)

Pin No.	Pin Name	I/O	Function
1-5	GR7-GR3	O	FL grid signal output.
6, 7	GR1, 2	O	
8	VDD	—	Power supply. (+B)
9	DIVISION	I	Division select input.
10	VOL 1	O	Volume encoder signal output.
11	VOL 2	O	
12	FUNCA	O	Input selector control signal output.
13	DBFB	O	DBFB switching signal output.
14	CLK-COM	O	Serial clock output. (LC72130, M62423)
15	DATA-COM	O	Serial data output. (LC72130, M62423)
16	S. DATA	I	Serial data input. (LC72130)
17	$\overline{\text{RESET}}$	I	Reset signal input.
18	K. PONA	O	Not used.
19	K. PONB	O	
20	AVSS	—	Power supply. (GND)
21	MAIN-LATCH	O	Serial latch output. (M62423)
22	TCREC-MUTE	O	Mute signal for TC REC.
23	SA-B	O	Not used.
24	SA-A	O	
25	SPEANA	I	Control signal input for spectram analizer.
26, 27	KEY-1, 2	I	Key matrix input.
28	KEY-PA	I	Key matrix input.
29	AVDD	—	Power supply. (GND)
30	AVREF	—	A/D converter. Reference terminal.
31	STEREO	I	Stereo detection signal from tuner.
32	XT2	—	Not used.
33	VSS	—	Power supply. (GND)
34	X1	—	X'tal (4.19 MHz)
35	X2	—	
36	TUNED	I	Tuned detection signal from tuner.
37	EON	O	Tuner block power control output.
38	KEYCON-LATCH	O	Latch signal for M65840.
39	PLL-LATCH	O	Latch signal for LC72130.
40	S. POW	O	System power on signal output.

Pin No.	Pin Name	I/O	Function
41	MUTE	O	Mute signal for AMP.
42	RDS-DATA	I	RDS data input. (SAA6579T)
43	AUB-OUT	O	AUBUS output.
44	$\overline{\text{AC CUT}}$	I	Power detect input terminal.
45	SIRCS	I	SIRCS signal input.
46	RDS-CLK	I	RDS clock input. (SAA6579T)
47	$\overline{\text{AUB-IN}}$	I	AUBUS input.
48	IC	—	(Connect to GND.)
49	FUNCB	O	Input selector control signal output.
50, 51	MPXA/B	O	Control signal output for MPX.
52	VDD	—	Power supply. (+B)
53-70	AN23-6	O	FL segment signal output.
71	VLOAD	—	Driving power for FL display panel.
72-76	AN5-1	O	FL segment signal output.
77-80	GR11-8	O	FL grid signal output.

SECTION 4

EXPLODED VIEW

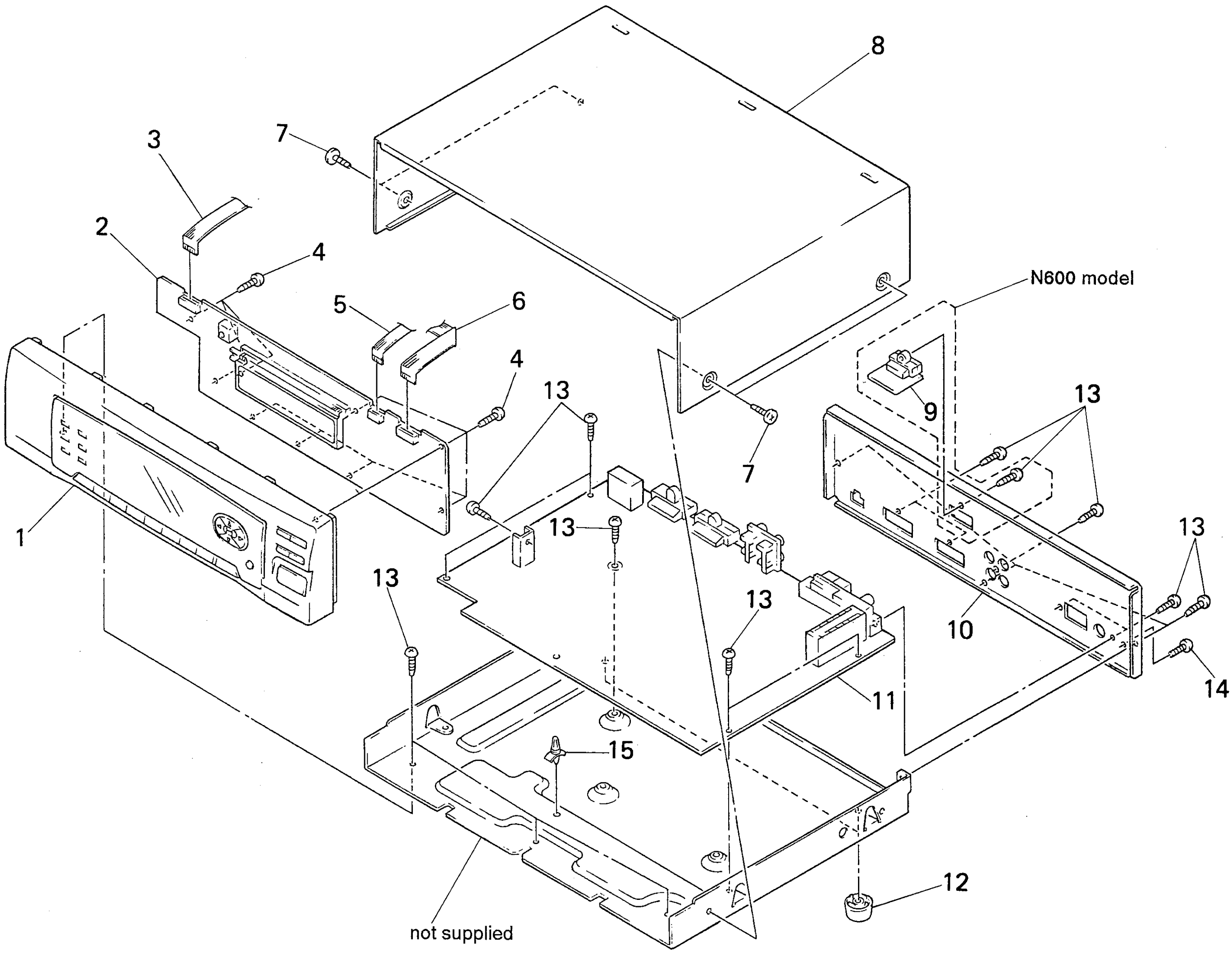
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Abbreviations

IT:Italian	G:German	EE:East European	AEP:AEP model without power souce for PS-LX56P.
MX:Mexican	AUS:Australian	AR:Argentin	AEP2:AEP model with power souce for PS-LX56P.



Ref. No.	Part No.	Description	Remark
1	X-4945-599-1	PANEL ASSY, FRONT (N500:AEP, AEP2, UK, G, IT, EE)	
1	X-4945-600-1	PANEL ASSY, FRONT (N500:E, MX, AR)	
1	X-4945-602-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE)	
1	X-4945-620-1	PANEL ASSY, FRONT (N500:CIS, AUS, PX)	
1	X-4945-965-1	PANEL ASSY, FRONT (N600:CIS, AUS)	
1	X-4946-159-1	PANEL ASSY, FRONT (N600:E)	
* 2	A-4377-261-A	PANEL BOARD, COMPLETE (N500:AEP, AEP2, UK)	
* 2	A-4377-818-A	PANEL BOARD, COMPLETE (N600:EE)	
* 2	A-4377-820-A	PANEL BOARD, COMPLETE (N600:CIS)	
* 2	A-4377-824-A	PANEL BOARD, COMPLETE (N500:AUS, PX)	
* 2	A-4377-827-A	PANEL BOARD, COMPLETE (N500:EE)	
* 2	A-4377-832-A	PANEL BOARD, COMPLETE (N600:AEP, UK)	
* 2	A-4377-833-A	PANEL BOARD, COMPLETE (N500:E, MX, AR)	
* 2	A-4377-835-A	PANEL BOARD, COMPLETE (N500:CIS)	
* 2	A-4377-919-A	PANEL BOARD, COMPLETE (N500:G, IT)	
* 2	A-4377-928-A	PANEL BOARD, COMPLETE (N600:G, IT)	
* 2	A-4378-420-A	PANEL BOARD, COMPLETE (N600:E)	
* 2	A-4378-423-A	PANEL BOARD, COMPLETE (N600:AUS)	
3	1-769-544-11	WIRE (FLAT TYPE) (15 CORE)	
4	4-951-620-01	SCREW (2.6X8), +BVTP	
5	1-769-546-11	WIRE (FLAT TYPE) (7 CORE) (CIS, E, AUS/N500:MX, AR, PX)	
5	1-769-547-11	WIRE (FLAT TYPE) (9 CORE) (AEP, UK, G, IT, EE/N500:AEP2)	
6	1-769-545-11	WIRE (FLAT TYPE) (15 CORE)	
7	3-363-099-01	SCREW (CASE 3 TP2)	
8	4-969-777-11	CASE	
* 9	1-655-474-11	CONNECTOR BOARD (N600)	
* 10	4-969-784-02	PANEL, BACK (N500:UK)	
* 10	4-969-784-11	PANEL, BACK (N500:AEP, G, IT)	
* 10	4-969-784-21	PANEL, BACK (N500:EE, CIS)	
* 10	4-969-784-41	PANEL, BACK (N600:AEP, UK, G, IT)	
* 10	4-969-784-51	PANEL, BACK (N600:EE, CIS)	
* 10	4-970-163-02	PANEL, BACK (N500:E)	
* 10	4-970-163-11	PANEL, BACK (N500:MX, AUS, PX)	
* 10	4-970-163-41	PANEL, BACK (N500:AR)	
* 10	4-970-163-51	PANEL, BACK (N600:E)	
* 10	4-970-163-61	PANEL, BACK (N600:AUS)	
* 10	4-973-530-01	PANEL, BACK (N500:AEP2)	
* 11	A-4377-390-A	MAIN BOARD, COMPLETE (N500:AEP)	
* 11	A-4377-391-A	MAIN BOARD, COMPLETE (N500:CIS)	
* 11	A-4377-392-A	MAIN BOARD, COMPLETE (N500:E)	
* 11	A-4377-394-A	MAIN BOARD, COMPLETE (N600:AEP, UK)	
* 11	A-4377-819-A	MAIN BOARD, COMPLETE (N600:EE)	
* 11	A-4377-821-A	MAIN BOARD, COMPLETE (N600:CIS)	
* 11	A-4377-825-A	MAIN BOARD, COMPLETE (N500:MX, AR, AUS, PX)	
* 11	A-4377-828-A	MAIN BOARD, COMPLETE (N500:EE)	
* 11	A-4377-830-A	MAIN BOARD, COMPLETE (N500:UK)	
* 11	A-4377-920-A	MAIN BOARD, COMPLETE (N500:G, IT)	
* 11	A-4377-922-A	MAIN BOARD, COMPLETE (N500:AEP2)	
* 11	A-4377-929-A	MAIN BOARD, COMPLETE (N600:G, IT)	
* 11	A-4378-421-A	MAIN BOARD, COMPLETE (N600:E, AUS)	
12	X-4941-228-1	FOOT ASSY	
13	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
14	7-682-548-04	SCREW +BVTT 3X8 (S)	
15	4-924-098-21	HOLDER, PC BOARD	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Abbreviations

IT:Italian	G:German	EE:East European	AEP:AEP model without power souce for PS-LX56P. /
MX:Mexican	AUS:Australian	AR:Argentin	AEP2:AEP model with power souce for PS-LX56P.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA ..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	1-655-474-11	CONNECTOR BOARD (N600)			
		*********************			
		< CAPACITOR >			
C760	1-164-159-11	CERAMIC	0.1uF		50V (N600)
C761	1-164-159-11	CERAMIC	0.1uF		50V (N600)
		< CONNECTOR >			
CN813	1-770-249-41	HOUSING, CONNECTOR(PC BOARD)9P			(N600)
**					
	A-4377-390-A	MAIN BOARD, COMPLETE (N500:AEP)			
*	A-4377-922-A	MAIN BOARD, COMPLETE (N500:AEP2)			
*	A-4377-830-A	MAIN BOARD, COMPLETE (N500:UK)			
*	A-4377-920-A	MAIN BOARD, COMPLETE (N500:G, IT)			
*	A-4377-828-A	MAIN BOARD, COMPLETE (N500:EE)			
*	A-4377-391-A	MAIN BOARD, COMPLETE (N500:CIS)			
*	A-4377-392-A	MAIN BOARD, COMPLETE (N500:E)			
*	A-4377-825-A	MAIN BOARD, COMPLETE (N500:MX, AR, AUS, PX)			
	A-4377-394-A	MAIN BOARD, COMPLETE (N600:AEP, UK)			
*	A-4377-929-A	MAIN BOARD, COMPLETE (N600:G, IT)			
*	A-4377-819-A	MAIN BOARD, COMPLETE (N600:EE)			
*	A-4377-821-A	MAIN BOARD, COMPLETE (N600:CIS)			
*	A-4378-421-A	MAIN BOARD, COMPLETE (N600:E, AUS)			
		******************************			
	1-537-770-11	TERMINAL BOARD, GROUND (N500:AEP, AEP2, G, IT)			
		< CAPACITOR >			
C1	1-162-306-11	CERAMIC	0.01uF	30%	16V
C2	1-126-934-11	ELECT	220uF	20%	16V
C3	1-162-306-11	CERAMIC	0.01uF	30%	16V
C4	1-162-306-11	CERAMIC	0.01uF	30%	16V
C5	1-162-306-11	CERAMIC	0.01uF	30%	16V
C6	1-162-306-11	CERAMIC	0.01uF	30%	16V
C7	1-162-306-11	CERAMIC	0.01uF	30%	16V
C8	1-162-306-11	CERAMIC	0.01uF	30%	16V
C9	1-101-004-00	CERAMIC	0.01uF		50V (EE, CIS, E, AUS/N500:MX, AR, PX)
C11	1-162-306-11	CERAMIC	0.01uF	30%	16V
C12	1-126-934-11	ELECT	220uF	20%	16V
C13	1-162-306-11	CERAMIC	0.01uF	30%	16V
C14	1-162-306-11	CERAMIC	0.01uF	30%	16V
C15	1-164-159-11	CERAMIC	0.1uF		50V
C16	1-126-964-11	ELECT	10uF	20%	50V
C17	1-124-902-00	ELECT	0.47uF	20%	50V
C18	1-124-903-11	ELECT	1uF	20%	50V
C19	1-124-903-11	ELECT	1uF	20%	50V
C20	1-126-964-11	ELECT	10uF	20%	50V
C21	1-126-964-11	ELECT	10uF	20%	50V
C22	1-126-964-11	ELECT	10uF	20%	50V
C23	1-126-964-11	ELECT	10uF	20%	50V
C24	1-137-436-11	FILM	0.0039uF	5%	50V
C25	1-137-436-11	FILM	0.0039uF	5%	50V
C26	1-136-160-00	FILM	0.039uF	5%	50V (AEP, UK, G, IT, EE, CIS/N500:AEP2)
C26	1-136-158-00	FILM	0.027uF	5%	50V (E, AUS/N500:MX, AR, PX)
C27	1-136-160-00	FILM	0.039uF	5%	50V (AEP, UK, G, IT, EE, CIS/N500:AEP2)
C27	1-136-158-00	FILM	0.027uF	5%	50V (E, AUS/N500:MX, AR, PX)
C28	1-124-903-11	ELECT	1uF	20%	50V
C29	1-162-294-31	CERAMIC	0.001uF	10%	50V
C30	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C31	1-126-967-11	ELECT	47uF	20%	16V
C32	1-126-111-11	ELECT	3.3uF	20%	50V
C33	1-162-306-11	CERAMIC	0.01uF	30%	16V
C34	1-126-933-11	ELECT	100uF	20%	10V
C35	1-162-306-11	CERAMIC	0.01uF	30%	16V
C38	1-162-211-31	CERAMIC	33PF	5%	50V
C40	1-101-005-00	CERAMIC	0.22uF		50V
C41	1-164-159-11	CERAMIC	0.1uF		50V (AEP, UK, EE, CIS/N500:AEP2)
C42	1-162-196-31	CERAMIC	5.6PF	10%	50V (AEP, UK, EE, CIS/N500:AEP2)
C42	1-162-198-31	CERAMIC	8.2PF	10%	50V (G, IT, E, AUS/N500:MX, AR, PX)
C43	1-162-306-11	CERAMIC	0.01uF	30%	16V
C44	1-102-120-00	CERAMIC	0.0018uF	10%	50V (AEP, UK, EE, CIS/N500:AEP2)

MAIN

Ref. No.	Part No.	Description	Remark
C45	1-162-301-11	CERAMIC 0.0015uF 30% 16V	(AEP, UK, EE, CIS/N500:AEP2)
C46	1-101-005-00	CERAMIC 0.022uF 50V	(AEP, UK, EE, CIS/N500:AEP2)
C51	1-164-031-11	CERAMIC 33PF 5% 50V	
C52	1-164-027-11	CERAMIC 22PF 5% 50V	
C53	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C54	1-126-967-11	ELECT 47uF 20% 16V	
C55	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C56	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C57	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C58	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C61	1-124-925-11	ELECT 2.2uF 20% 100V	
C62	1-164-159-11	CERAMIC 0.1uF 50V	
C63	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C65	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C68	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C69	1-126-934-11	ELECT 220uF 20% 16V	
C71	1-136-173-00	FILM 0.47uF 5% 50V	(AEP, UK, EE, CIS/N500:AEP2)
C72	1-161-494-00	CERAMIC 0.022uF 25V	(AEP, UK, EE, CIS/N500:AEP2)
C73	1-161-494-00	CERAMIC 0.022uF 25V	(AEP, UK, EE, CIS/N500:AEP2)
C95	1-124-907-11	ELECT 10uF 20% 50V(CIS)	
C96	1-124-907-11	ELECT 10uF 20% 50V(CIS)	
C101	1-162-294-31	CERAMIC 0.001uF 10% 50V(CIS)	
C102	1-130-014-00	FILM 470PF 5% 50V(CIS)	
C103	1-124-902-00	ELECT 0.47uF 20% 50V(CIS)	
C104	1-124-902-00	ELECT 0.47uF 20% 50V(CIS)	
C105	1-164-098-11	CERAMIC 0.047uF 12V(CIS)	
C106	1-124-903-11	ELECT 1uF 20% 50V(CIS)	
C107	1-162-288-31	CERAMIC 330PF 10% 50V(CIS)	
C110	1-130-471-00	MYLAR 0.001uF 5% 50V(CIS)	
C111	1-130-471-00	MYLAR 0.001uF 5% 50V(CIS)	
C112	1-130-736-11	FILM 0.01uF 5% 50V(CIS)	
C113	1-130-736-11	FILM 0.01uF 5% 50V(CIS)	
C114	1-124-903-11	ELECT 1uF 20% 50V(CIS)	
C115	1-124-903-11	ELECT 1uF 20% 50V(CIS)	
C116	1-124-903-11	ELECT 1uF 20% 50V(CIS)	
C119	1-104-664-11	ELECT 47uF 20% 16V(CIS)	
C120	1-162-306-11	CERAMIC 0.01uF 30% 16V(CIS)	
C123	1-162-306-11	CERAMIC 0.01uF 30% 16V(CIS)	
C124	1-162-306-11	CERAMIC 0.01uF 30% 16V(CIS)	
C125	1-104-664-11	ELECT 47uF 20% 16V(CIS)	
C126	1-124-903-11	ELECT 1uF 20% 50V(CIS)	
C127	1-124-903-11	ELECT 1uF 20% 50V(CIS)	
C128	1-104-663-11	ELECT 33uF 20% 16V(CIS)	
C201	1-162-291-31	CERAMIC 560PF 10% 50V	(AEP, UK, G, IT, EE/N500:AEP2)

Ref. No.	Part No.	Description	Remark
C202	1-162-306-11	CERAMIC 0.01uF 30% 16V	(AEP, UK, G, IT, EE/N500:AEP2)
C203	1-126-964-11	ELECT 10uF 20% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C204	1-162-288-31	CERAMIC 330PF 10% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C205	1-126-964-11	ELECT 10uF 20% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C206	1-124-925-11	ELECT 2.2uF 20% 100V	(AEP, UK, G, IT, EE/N500:AEP2)
C207	1-162-306-11	CERAMIC 0.01uF 30% 16V	(AEP, UK, G, IT, EE/N500:AEP2)
C208	1-162-291-31	CERAMIC 560PF 10% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C209	1-102-527-11	CERAMIC 82PF 5% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C210	1-101-880-00	CERAMIC 47PF 5% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C211	1-162-306-11	CERAMIC 0.01uF 30% 16V	(AEP, UK, G, IT, EE/N500:AEP2)
C212	1-126-964-11	ELECT 10uF 20% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C213	1-162-294-31	CERAMIC 0.001uF 10% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C214	1-162-294-31	CERAMIC 0.001uF 10% 50V	(AEP, UK, G, IT, EE/N500:AEP2)
C215	1-162-306-11	CERAMIC 0.01uF 30% 16V	(AEP, UK, G, IT, EE, CIS/N500:AEP2)
C301	1-162-288-31	CERAMIC 330PF 10% 50V	
C303	1-162-282-31	CERAMIC 100PF 10% 50V	
C304	1-162-282-31	CERAMIC 100PF 10% 50V	
C305	1-126-963-11	ELECT 4.7uF 20% 50V	
C306	1-162-600-11	CERAMIC 0.0047uF 30% 16V	
C307	1-162-301-11	CERAMIC 0.0015uF 30% 16V	
C308	1-124-902-00	ELECT 0.47uF 20% 50V	(N500)
C308	1-124-464-11	ELECT 0.22uF 20% 50V	(N600)
C309	1-126-967-11	ELECT 47uF 20% 16V	
C310	1-162-286-21	CERAMIC 220PF 10% 50V	
C311	1-162-282-31	CERAMIC 100PF 10% 50V	
C312	1-162-282-31	CERAMIC 100PF 10% 50V	
C314	1-124-903-11	ELECT 1uF 20% 50V	
C315	1-124-903-11	ELECT 1uF 20% 50V	
C320	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C321	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C351	1-162-288-31	CERAMIC 330PF 10% 50V	
C353	1-162-282-31	CERAMIC 100PF 10% 50V	
C354	1-162-282-31	CERAMIC 100PF 10% 50V	
C355	1-126-963-11	ELECT 4.7uF 20% 50V	
C356	1-162-600-11	CERAMIC 0.0047uF 30% 16V	
C357	1-162-301-11	CERAMIC 0.0015uF 30% 16V	
C358	1-124-902-00	ELECT 0.47uF 20% 50V	(N500)

Ref. No.	Part No.	Description	Remark
C358	1-124-464-11	ELECT	0.22uF 20% 50V (N600)
C359	1-126-967-11	ELECT	47uF 20% 16V
C360	1-162-286-21	CERAMIC	220PF 10% 50V
C501	1-136-162-00	FILM	0.056uF 5% 50V
C502	1-136-156-00	FILM	0.018uF 5% 50V
C503	1-124-903-11	ELECT	1uF 20% 50V
C504	1-162-302-11	CERAMIC	0.0022uF 30% 16V
C505	1-136-162-00	FILM	0.056uF 5% 50V
C506	1-162-600-11	CERAMIC	0.0047uF 30% 16V
C507	1-136-169-00	FILM	0.22uF 5% 50V
C508	1-136-162-00	FILM	0.056uF 5% 50V
C509	1-136-162-00	FILM	0.056uF 5% 50V
C510	1-126-964-11	ELECT	10uF 20% 50V
C511	1-162-306-11	CERAMIC	0.01uF 30% 16V
C533	1-126-964-11	ELECT	10uF 20% 50V
C534	1-126-964-11	ELECT	10uF 20% 50V
C535	1-164-159-11	CERAMIC	0.1uF 50V
C536	1-164-159-11	CERAMIC	0.1uF 50V
C537	1-162-286-21	CERAMIC	220PF 10% 50V
C552	1-136-156-00	FILM	0.018uF 5% 50V
C553	1-124-903-11	ELECT	1uF 20% 50V
C554	1-162-302-11	CERAMIC	0.0022uF 30% 16V
C555	1-136-162-00	FILM	0.056uF 5% 50V
C556	1-162-600-11	CERAMIC	0.0047uF 30% 16V
C557	1-136-169-00	FILM	0.22uF 5% 50V
C558	1-136-162-00	FILM	0.056uF 5% 50V
C801	1-124-122-11	ELECT	100uF 20% 50V
C802	1-128-576-11	ELECT	100uF 20% 63V
C803	1-162-306-11	CERAMIC	0.01uF 30% 16V
C804	1-128-552-51	ELECT	47uF 20% 63V
C805	1-124-122-11	ELECT	100uF 20% 50V
C806	1-126-971-11	ELECT	470uF 20% 50V
C807	1-162-306-11	CERAMIC	0.01uF 30% 16V
C808	1-124-925-11	ELECT	2.2uF 20% 100V
C809	1-124-925-11	ELECT	2.2uF 20% 100V
C811	1-126-944-11	ELECT	3300uF 20% 25V
C812	1-126-944-11	ELECT	3300uF 20% 25V
C813	1-101-004-00	CERAMIC	0.01uF 50V
C814	1-101-004-00	CERAMIC	0.01uF 50V
C815	1-126-964-11	ELECT	10uF 20% 50V
C816	1-126-964-11	ELECT	10uF 20% 50V
C817	1-126-933-11	ELECT	100uF 20% 16V
C818	1-126-933-11	ELECT	100uF 20% 16V
C831	1-126-964-11	ELECT	10uF 20% 50V
C832	1-124-463-00	ELECT	0.1uF 20% 50V
C835	1-126-964-11	ELECT	10uF 20% 50V
C837	1-126-933-11	ELECT	100uF 20% 10V
C838	1-124-122-11	ELECT	100uF 20% 50V

Ref. No.	Part No.	Description	Remark
C839	1-124-477-11	ELECT	47uF 20% 25V
C840	1-126-967-11	ELECT	47uF 20% 50V
C841	1-124-478-11	ELECT	100uF 20% 25V
C842	1-162-306-11	CERAMIC	0.01uF 30% 16V
C843	1-126-943-11	ELECT	2200uF 20% 25V
C844	1-124-477-11	ELECT	47uF 20% 25V (N500:AEP2, UK, E)
C845	1-164-159-11	CERAMIC	0.1uF 50V
C846	1-124-477-11	ELECT	47uF 20% 25V
C851	1-136-177-00	FILM	1uF 5% 50V
C852	1-136-169-00	FILM	0.22uF 5% 50V
C853	1-124-903-11	ELECT	1uF 20% 50V
C854	1-136-169-00	FILM	0.22uF 5% 50V
C855	1-136-162-00	FILM	0.056uF 5% 50V
C856	1-124-903-11	ELECT	1uF 20% 50V
C857	1-136-161-00	FILM	0.047uF 5% 50V
C858	1-136-153-00	FILM	0.01uF 5% 50V
C859	1-124-903-11	ELECT	1uF 20% 50V
C860	1-130-479-00	MYLAR	0.0047uF 5% 50V
C861	1-124-903-11	ELECT	1uF 20% 50V
C862	1-126-964-11	ELECT	10uF 20% 50V
C863	1-126-964-11	ELECT	10uF 20% 50V
C871	1-126-964-11	ELECT	10uF 20% 50V
C872	1-124-925-11	ELECT	2.2uF 20% 100V
C880	1-162-294-31	CERAMIC	0.001uF 10% 50V
C883	1-162-306-11	CERAMIC	0.01uF 30% 16V
C884	1-162-306-11	CERAMIC	0.01uF 30% 16V
C885	1-164-159-11	CERAMIC	0.1uF 50V (N500:AEP2, UK, E)
C886	1-162-282-31	CERAMIC	100PF 10% 50V (N600)
C887	1-161-494-00	CERAMIC	0.022uF 25V
C888	1-162-294-31	CERAMIC	0.001uF 10% 50V
C890	1-164-159-11	CERAMIC	0.1uF 50V (N500:E, MX, AR, AU, PX)
		< FILTER >	
CF1	1-567-389-11	FILTER, CERAMIC	
CF2	1-760-393-11	FILTER, CERAMIC	(AEP, UK, G, IT/N500:AEP2)
CF3	1-760-393-11	FILTER, CERAMIC	(AEP, UK, G, IT/N500:AEP2)
CF3	1-567-389-11	FILTER, CERAMIC	(EE, CIS, E, AUS/N500:MX, AR, PX)
CF4	1-760-220-11	FILTER, CERAMIC	(10.7MHz)
CF5	1-527-981-00	FILTER, CERAMIC	(450KHz)
CF6	1-577-075-11	OSCILLATOR, CERAMIC	(456KHz)
		< CONNECTOR >	
* CN2	1-568-828-11	SOCKET, CONNECTOR 9P	(AEP, UK, G, IT, EE/N500:AEP2)
* CN2	1-568-826-11	SOCKET, CONNECTOR 7P	(CIS, E, AUS/N500:MX, AR, PX)

MAIN

Ref. No.	Part No.	Description	Remark
* CN801	1-568-936-11	PIN, CONNECTOR 9P (N600)	
CN802	1-764-017-11	HOUSING, CONNECTOR (PC BOARD) 17P	
CN803	1-770-248-31	HOUSING, CONNECTOR (PC BOARD) 16P	
* CN805	1-566-210-11	PIN, CONNECTOR 3P (POWER SOURCE)	(N500:AEP2, UK, E)
* CN820	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN821	1-568-834-11	SOCKET, CONNECTOR 15P	

< TRIMMER >

Ref. No.	Part No.	Description	Remark
CT101	1-141-260-00	CAP, TRIMMER 50PF (CIS)	

< DIODE >

Ref. No.	Part No.	Description	Remark
D1	8-719-987-63	DIODE 1N4148M	
D2	8-719-987-63	DIODE 1N4148M (CIS)	
D3	8-719-987-63	DIODE 1N4148M (CIS)	
D101	8-719-987-63	DIODE 1N4148M (CIS)	
D103	8-719-987-63	DIODE 1N4148M (CIS)	
D104	8-719-987-63	DIODE 1N4148M (CIS)	
D105	8-719-987-63	DIODE 1N4148M (CIS)	
D801	8-719-024-99	DIODE 11ES2-NTA2B	
D802	8-719-024-99	DIODE 11ES2-NTA2B	
D803	8-719-024-99	DIODE 11ES2-NTA2B	
D804	8-719-024-99	DIODE 11ES2-NTA2B	
D805	8-719-024-99	DIODE 11ES2-NTA2B	
D806	8-719-024-99	DIODE 11ES2-NTA2B	
D807	8-719-934-22	DIODE HZS30-2L	
D808	8-719-933-48	DIODE HZS7B3L	
D809	8-719-987-63	DIODE 1N4148M	
D810	8-719-024-99	DIODE 11ES2-NTA2B	
D811	8-719-024-99	DIODE 11ES2-NTA2B	
D812	8-719-001-42	DIODE UZL-11M1	
D815	8-719-024-99	DIODE 11ES2-NTA2B	
D816	8-719-024-99	DIODE 11ES2-NTA2B	
D817	8-719-024-99	DIODE 11ES2-NTA2B	
D818	8-719-024-99	DIODE 11ES2-NTA2B	
D819	8-719-024-99	DIODE 11ES2-NTA2B	
D820	8-719-024-99	DIODE 11ES2-NTA2B	
D821	8-719-024-99	DIODE 11ES2-NTA2B	
D822	8-719-024-99	DIODE 11ES2-NTA2B	
D823	8-719-024-99	DIODE 11ES2-NTA2B (N500:AEP2, UK, E)	
D824	8-719-024-99	DIODE 11ES2-NTA2B (N500:AEP2, UK, E)	
D825	8-719-024-99	DIODE 11ES2-NTA2B (N500:AEP2, UK, E)	
D826	8-719-024-99	DIODE 11ES2-NTA2B	
D827	8-719-024-99	DIODE 11ES2-NTA2B	
D828	8-719-024-99	DIODE 11ES2-NTA2B	
D829	8-719-024-99	DIODE 11ES2-NTA2B	
D830	8-719-024-99	DIODE 11ES2-NTA2B	
D831	8-719-000-84	DIODE UZL-7M1	
D851	8-719-987-63	DIODE 1N4148M	
D852	8-719-987-63	DIODE 1N4148M	
D853	8-719-987-63	DIODE 1N4148M	
D854	8-719-987-63	DIODE 1N4148M	
D871	8-719-987-63	DIODE 1N4148M	
D872	8-719-815-85	DIODE 1S1585	

< TERMINAL >

Ref. No.	Part No.	Description	Remark
EB801	1-537-770-11	TERMINAL BOARD, GROUND	(UK, EE, CIS, E, AUS, /N500:MX, AR, PX)

< FERRITE BEAD >

Ref. No.	Part No.	Description	Remark
FB801	1-412-473-21	INDUCTOR 0UH (N600)	

< FRONT END >

Ref. No.	Part No.	Description	Remark
FE1	1-693-253-21	FRONT END (4 GANG)	(AEP, UK, G, IT/N500:AEP2)
FE1	1-693-244-21	FRONT END (3 GANG) (EE, CIS)	
FE1	1-693-090-51	FRONT END (FM) (2 GANG)	(E, AUS/N500:MX, AR, PX)

< IC >

Ref. No.	Part No.	Description	Remark
IC3	8-759-176-03	IC LA1835	
IC51	8-759-288-54	IC LC72130	
IC101	8-759-063-04	IC IR3R42 (CIS)	
IC102	8-759-140-53	IC uPD4053BC (CIS)	
IC201	8-759-634-51	IC M5218AP (AEP, UK, G, IT, EE/N500:AEP2)	
IC202	8-759-169-99	IC SAA6579 (AEP, UK, G, IT, EE/N500:AEP2)	
IC301	8-759-000-48	IC MC14052BCP	
IC302	8-759-140-53	IC uPD4053BC	
IC303	8-759-634-51	IC M5218AP	
IC401	8-759-634-51	IC M5218AP	
IC501	8-759-291-98	IC M62423FP	
IC502	8-759-000-49	IC MC14066BCP	
IC801	8-759-820-13	IC L78MR06	
IC802	8-759-604-86	IC M5F7807L	
IC803	8-759-604-90	IC M5F7907L	
IC804	8-759-231-53	IC TA7805S	
IC850	8-759-634-51	IC M5218AP	
IC851	8-759-000-48	IC MC14052BCP	

< IFT >

Ref. No.	Part No.	Description	Remark
IFT1	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)	

< JACK >

Ref. No.	Part No.	Description	Remark
* J801	1-580-912-11	JACK, PIN 4P (PHONO/AUX IN)	(N600:AEP, G, IT/N500)
J801	1-580-905-11	JACK, PIN (PHONO/AUX IN)	(N600:UK, EE, CIS, E, AUS)

< COIL >

Ref. No.	Part No.	Description	Remark
L1	1-407-500-00	INDUCTOR 4.7mH	(AEP, UK, EE, CIS/N500:AEP2)
L1	1-410-688-31	INDUCTOR 1.5mH	(G, IT, E, AUS/N500:MX, AR, PX)
L2	1-410-524-41	INDUCTOR 220uH	(AEP/N500:AEP2)
L2	1-410-525-11	INDUCTOR 220uH	(UK, EE, CIS)
L31	1-414-142-11	INDUCTOR 1uH	
L101	1-409-497-11	COIL (FILTER)	(CIS)

< FILTER >

Ref. No.	Part No.	Description	Remark
LPF1	1-239-597-11	FILTER, LOW PASS	
LPF2	1-239-597-11	FILTER, LOW PASS	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q1	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q2	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q3	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q4	8-729-230-99	TRANSISTOR 2SC2669-OY	
Q5	8-729-422-57	TRANSISTOR UN4111	
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE	(AEP, UK, EE, CIS/N500:AEP2)
Q7	8-729-119-76	TRANSISTOR 2SA1175-HFE	(AEP, UK, EE, CIS/N500:AEP2)
Q8	8-729-900-80	TRANSISTOR DTC114ES	(AEP, UK, EE, CIS/N500:AEP2)
Q9	8-729-900-80	TRANSISTOR DTC114ES	(AEP, UK, EE, CIS/N500:AEP2)
Q10	8-729-900-80	TRANSISTOR DTC114ES	(AEP, UK, EE, CIS/N500:AEP2)
Q11	8-729-900-80	TRANSISTOR DTC114ES	(AEP, UK, EE, CIS/N500:AEP2)
Q101	8-729-422-57	TRANSISTOR UN4111	(CIS)
Q102	8-729-900-80	TRANSISTOR DTC114ES	(CIS)
Q103	8-729-900-80	TRANSISTOR DTC114ES	(CIS)
Q320	8-729-900-80	TRANSISTOR DTC114ES	
Q501	8-729-900-80	TRANSISTOR DTC114ES	
Q502	8-729-422-57	TRANSISTOR UN4111	
Q503	8-729-422-57	TRANSISTOR UN4111	
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q801	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q802	8-729-801-84	TRANSISTOR 2SB1013-4	(N600)
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-030-19	TRANSISTOR 2SB1640	
Q805	8-729-209-15	TRANSISTOR 2SD2012	
Q806	8-729-900-80	TRANSISTOR DTC114ES	
Q807	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q808	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q810	8-729-422-57	TRANSISTOR UN4111	
Q811	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q812	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q814	8-729-422-57	TRANSISTOR UN4111	
Q815	8-729-900-80	TRANSISTOR DTC114ES	
Q816	8-729-141-30	TRANSISTOR 2SC3623A-LK	(EXCEPT CIS)

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R4	1-249-401-11	CARBON 47 5% 1/4W	
R5	1-249-411-11	CARBON 330 5% 1/4W	
R6	1-249-433-11	CARBON 22K 5% 1/4W	
R7	1-249-411-11	CARBON 330 5% 1/4W	
R8	1-249-411-11	CARBON 330 5% 1/4W	
R9	1-249-433-11	CARBON 22K 5% 1/4W	
R10	1-249-411-11	CARBON 330 5% 1/4W	
R11	1-249-433-11	CARBON 22K 5% 1/4W	(AEP, UK, G, IT, EE, CIS/N500:AEP2)
R11	1-249-411-11	CARBON 330 5% 1/4W	(E, AUS/N500:MX, AR, PX)
R12	1-249-411-11	CARBON 330 5% 1/4W	
R13	1-249-411-11	CARBON 330 5% 1/4W	(AEP, UK, G, IT, EE, CIS/N500:AEP2)
R14	1-249-433-11	CARBON 22K 5% 1/4W	(AEP, UK, G, IT, EE, CIS/N500:AEP2)
R15	1-249-405-11	CARBON 100 5% 1/4W	
R16	1-249-442-11	CARBON 510 5% 1/4W	
R17	1-249-403-11	CARBON 68 5% 1/4W	
R18	1-249-423-11	CARBON 3.3K 5% 1/4W	
R19	1-249-441-11	CARBON 100K 5% 1/4W	
R20	1-249-429-11	CARBON 10K 5% 1/4W	
R25	1-249-429-11	CARBON 10K 5% 1/4W	
R26	1-249-429-11	CARBON 10K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R28	1-249-401-11	CARBON 47 5% 1/4W	
R40	1-249-399-11	CARBON 33 5% 1/4W	
R41	1-249-429-11	CARBON 10K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R42	1-249-429-11	CARBON 10K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R43	1-249-441-11	CARBON 100K 5% 1/4W	
R44	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R45	1-249-437-11	CARBON 47K 5% 1/4W	
R46	1-247-903-00	CARBON 1M 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R47	1-249-433-11	CARBON 22K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R48	1-249-437-11	CARBON 47K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R50	1-249-401-11	CARBON 47 5% 1/4W	
R52	1-249-429-11	CARBON 10K 5% 1/4W	
R53	1-249-423-11	CARBON 3.3K 5% 1/4W	
R55	1-249-417-11	CARBON 1K 5% 1/4W	
R56	1-249-417-11	CARBON 1K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)

MAIN

Ref. No.	Part No.	Description	Remark
R57	1-249-417-11	CARBON 1K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R58	1-249-417-11	CARBON 1K 5% 1/4W	
R59	1-249-417-11	CARBON 1K 5% 1/4W	
R60	1-249-405-11	CARBON 100 5% 1/4W	
R61	1-249-423-11	CARBON 3.3K 5% 1/4W	
R62	1-249-425-11	CARBON 4.7K 5% 1/4W	
R63	1-249-425-11	CARBON 4.7K 5% 1/4W	
R64	1-249-425-11	CARBON 4.7K 5% 1/4W	
R65	1-247-807-31	CARBON 100 5% 1/4W	
R66	1-249-425-11	CARBON 4.7K 5% 1/4W	
R71	1-249-423-11	CARBON 3.3K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R72	1-249-433-11	CARBON 22K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R73	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R74	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R75	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, EE, CIS/N500:AEP2)
R101	1-249-432-11	CARBON 18K 5% 1/4W	(CIS)
R102	1-249-435-11	CARBON 33K 5% 1/4W	(CIS)
R103	1-249-427-11	CARBON 6.8K 5% 1/4W	(CIS)
R104	1-247-858-11	CARBON 13K 5% 1/4W	(CIS)
R105	1-249-417-11	CARBON 1K 5% 1/4W	(CIS)
R106	1-249-417-11	CARBON 1K 5% 1/4W	(CIS)
R107	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
R108	1-249-440-11	CARBON 82K 5% 1/4W	(CIS)
R109	1-249-437-11	CARBON 47K 5% 1/4W	(CIS)
R110	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R111	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R114	1-249-426-11	CARBON 5.6K 5% 1/4W	(CIS)
R115	1-249-426-11	CARBON 5.6K 5% 1/4W	(CIS)
R116	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
R117	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
R118	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R119	1-249-429-11	CARBON 10K 5% 1/4W	(CIS)
R121	1-249-434-11	CARBON 27K 5% 1/4W	(CIS)
R122	1-249-441-11	CARBON 100K 5% 1/4W	(CIS)
R201	1-249-441-11	CARBON 100K 5% 1/4W	(AEP, UK, G, IT, EE/N500:AEP2)
R202	1-249-441-11	CARBON 100K 5% 1/4W	(AEP, UK, G, IT, EE/N500:AEP2)
R203	1-249-433-11	CARBON 22K 5% 1/4W	(AEP, UK, G, IT, EE/N500:AEP2)
R204	1-249-426-11	CARBON 5.6K 5% 1/4W	(AEP, UK, G, IT, EE/N500:AEP2)
R205	1-247-807-31	CARBON 100 5% 1/4W	(AEP, UK, G, IT, EE/N500:AEP2)
R206	1-249-421-11	CARBON 2.2K 5% 1/4W	(AEP, UK, G, IT, EE/N500:AEP2)
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-417-11	CARBON 1K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R303	1-249-437-11	CARBON 47K 5% 1/4W	
R304	1-249-416-11	CARBON 820 5% 1/4W	
R305	1-247-897-11	CARBON 560K 5% 1/4W	
R306	1-249-437-11	CARBON 47K 5% 1/4W	
R307	1-249-422-11	CARBON 2.7K 5% 1/4W	(N500)
R307	1-249-409-11	CARBON 220 5% 1/4W	(N600)
R308	1-249-427-11	CARBON 6.8K 5% 1/4W	(N500)
R308	1-249-441-11	CARBON 100K 5% 1/4W	(N600)
R309	1-249-409-11	CARBON 220 5% 1/4W	
R310	1-249-425-11	CARBON 4.7K 5% 1/4W	(N500)
R310	1-249-417-11	CARBON 1K 5% 1/4W	(N600)
R311	1-249-431-11	CARBON 15K 5% 1/4W	(N500)
R311	1-249-441-11	CARBON 100K 5% 1/4W	(N600)
R312	1-249-417-11	CARBON 1K 5% 1/4W	
R313	1-249-417-11	CARBON 1K 5% 1/4W	
R314	1-249-417-11	CARBON 1K 5% 1/4W	
R315	1-247-807-31	CARBON 100 5% 1/4W	
R316	1-249-417-11	CARBON 1K 5% 1/4W	
R317	1-249-417-11	CARBON 1K 5% 1/4W	
R318	1-249-419-11	CARBON 1.5K 5% 1/4W	
R319	1-249-417-11	CARBON 1K 5% 1/4W	
R320	1-249-429-11	CARBON 10K 5% 1/4W	
R321	1-249-429-11	CARBON 10K 5% 1/4W	
R322	1-249-429-11	CARBON 10K 5% 1/4W	
R323	1-249-429-11	CARBON 10K 5% 1/4W	
R324	1-249-423-11	CARBON 3.3K 5% 1/4W	(N500)
R324	1-249-431-11	CARBON 15K 5% 1/4W	(N600)
R327	1-249-417-11	CARBON 1K 5% 1/4W	(EXCEPT CIS)
R328	1-249-429-11	CARBON 10K 5% 1/4W	
R329	1-249-429-11	CARBON 10K 5% 1/4W	
R342	1-249-441-11	CARBON 100K 5% 1/4W	
R343	1-249-441-11	CARBON 100K 5% 1/4W	
R345	1-247-807-31	CARBON 100 5% 1/4W	
R346	1-247-807-31	CARBON 100 5% 1/4W	
R351	1-249-417-11	CARBON 1K 5% 1/4W	
R352	1-249-417-11	CARBON 1K 5% 1/4W	
R353	1-249-437-11	CARBON 47K 5% 1/4W	
R354	1-249-416-11	CARBON 820 5% 1/4W	
R355	1-247-897-11	CARBON 560K 5% 1/4W	
R356	1-249-437-11	CARBON 47K 5% 1/4W	
R357	1-249-422-11	CARBON 2.7K 5% 1/4W	(N500)
R357	1-249-409-11	CARBON 220 5% 1/4W	(N600)
R358	1-249-427-11	CARBON 6.8K 5% 1/4W	(N500)
R358	1-249-441-11	CARBON 100K 5% 1/4W	(N600)
R359	1-249-409-11	CARBON 220 5% 1/4W	
R360	1-249-425-11	CARBON 4.7K 5% 1/4W	(N500)
R360	1-249-417-11	CARBON 1K 5% 1/4W	(N600)
R361	1-249-431-11	CARBON 15K 5% 1/4W	(N500)

Ref. No.	Part No.	Description				Remark
R361	1-249-441-11	CARBON	100K	5%	1/4W	(N600)
R364	1-249-417-11	CARBON	1K	5%	1/4W	
R366	1-249-417-11	CARBON	1K	5%	1/4W	
R367	1-249-417-11	CARBON	1K	5%	1/4W	
R368	1-249-419-11	CARBON	1.5K	5%	1/4W	
R369	1-249-417-11	CARBON	1K	5%	1/4W	
R370	1-249-441-11	CARBON	100K	5%	1/4W	
R371	1-247-883-00	CARBON	150K	5%	1/4W	
R374	1-249-423-11	CARBON	3.3K	5%	1/4W	(N500)
R374	1-249-431-11	CARBON	15K	5%	1/4W	(N600)
R382	1-249-401-11	CARBON	47	5%	1/4W	(N600)
R383	1-249-401-11	CARBON	47	5%	1/4W	(N600)
R501	1-249-417-11	CARBON	1K	5%	1/4W	
R502	1-249-417-11	CARBON	1K	5%	1/4W	
R503	1-249-417-11	CARBON	1K	5%	1/4W	
R504	1-249-441-11	CARBON	100K	5%	1/4W	(N500)
R504	1-249-433-11	CARBON	22K	5%	1/4W	(N600)
R505	1-249-426-11	CARBON	5.6K	5%	1/4W	
R506	1-249-441-11	CARBON	100K	5%	1/4W	
R510	1-249-417-11	CARBON	1K	5%	1/4W	(N500)
R510	1-249-423-11	CARBON	3.3K	5%	1/4W	(N600)
R554	1-249-441-11	CARBON	100K	5%	1/4W	(N500)
R554	1-249-433-11	CARBON	22K	5%	1/4W	(N600)
R555	1-249-426-11	CARBON	5.6K	5%	1/4W	
R556	1-249-417-11	CARBON	1K	5%	1/4W	
R557	1-247-887-00	CARBON	220K	5%	1/4W	
R558	1-249-417-11	CARBON	1K	5%	1/4W	
R559	1-247-887-00	CARBON	220K	5%	1/4W	
R560	1-249-417-11	CARBON	1K	5%	1/4W	(N500)
R560	1-249-423-11	CARBON	3.3K	5%	1/4W	(N600)
R801	1-249-441-11	CARBON	100K	5%	1/4W	
R805	1-249-421-11	CARBON	2.2K	5%	1/4W	
⚠R806	1-212-869-00	FUSIBLE	33	5%	1/4W	F
R807	1-260-070-11	CARBON	3.3	5%	1/2W	
R808	1-215-871-11	METAL OXIDE	2.2K	5%	1W	
R810	1-249-429-11	CARBON	10K	5%	1/4W	
R811	1-249-429-11	CARBON	10K	5%	1/4W	
R812	1-249-429-11	CARBON	10K	5%	1/4W	(N600)
R813	1-249-429-11	CARBON	10K	5%	1/4W	(N600)
R814	1-249-429-11	CARBON	10K	5%	1/4W	
R815	1-249-429-11	CARBON	10K	5%	1/4W	
R816	1-249-441-11	CARBON	100K	5%	1/4W	
R819	1-249-429-11	CARBON	10K	5%	1/4W	(N500)
R820	1-249-417-11	CARBON	1K	5%	1/4W	
R821	1-249-417-11	CARBON	1K	5%	1/4W	
R822	1-249-417-11	CARBON	1K	5%	1/4W	
R823	1-249-417-11	CARBON	1K	5%	1/4W	
R824	1-249-417-11	CARBON	1K	5%	1/4W	
R828	1-249-423-11	CARBON	3.3K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
⚠R842	1-212-873-11	FUSIBLE	47	5%	1/4W	F
⚠R843	1-212-873-11	FUSIBLE	47	5%	1/4W	F(N600)
R844	1-249-429-11	CARBON	10K	5%	1/4W	
R851	1-249-416-11	CARBON	820	5%	1/4W	
R852	1-249-429-11	CARBON	10K	5%	1/4W	
R853	1-249-441-11	CARBON	100K	5%	1/4W	
R854	1-249-417-11	CARBON	1K	5%	1/4W	
R855	1-249-429-11	CARBON	10K	5%	1/4W	
R856	1-249-441-11	CARBON	100K	5%	1/4W	
R857	1-249-417-11	CARBON	1K	5%	1/4W	
R858	1-249-430-11	CARBON	12K	5%	1/4W	
R859	1-249-441-11	CARBON	100K	5%	1/4W	
R860	1-249-429-11	CARBON	10K	5%	1/4W	
R861	1-249-441-11	CARBON	100K	5%	1/4W	
R862	1-249-423-11	CARBON	3.3K	5%	1/4W	
R863	1-249-423-11	CARBON	3.3K	5%	1/4W	
R864	1-249-429-11	CARBON	10K	5%	1/4W	
R865	1-249-429-11	CARBON	10K	5%	1/4W	
R866	1-249-417-11	CARBON	1K	5%	1/4W	
R867	1-249-417-11	CARBON	1K	5%	1/4W	
R869	1-249-429-11	CARBON	10K	5%	1/4W	(N500)
R871	1-249-433-11	CARBON	22K	5%	1/4W	
R872	1-249-433-11	CARBON	22K	5%	1/4W	
R873	1-249-441-11	CARBON	100K	5%	1/4W	
R874	1-247-807-31	CARBON	100	5%	1/4W	
R875	1-249-435-11	CARBON	33K	5%	1/4W	
R876	1-249-417-11	CARBON	1K	5%	1/4W	
R878	1-249-423-11	CARBON	3.3K	5%	1/4W	
R890	1-249-423-11	CARBON	3.3K	5%	1/4W	(N500)
R890	1-249-425-11	CARBON	4.7K	5%	1/4W	(N600)
R891	1-249-423-11	CARBON	3.3K	5%	1/4W	(N500)
R891	1-249-425-11	CARBON	4.7K	5%	1/4W	(N600)
R893	1-249-423-11	CARBON	3.3K	5%	1/4W	(N500)
R893	1-249-417-11	CARBON	1K	5%	1/4W	(N600)
R894	1-249-423-11	CARBON	3.3K	5%	1/4W	(N500)
R894	1-249-417-11	CARBON	1K	5%	1/4W	(N600)

< COMPOSITION CIRCUIT BLOCK >

RB1	1-239-876-11	ENCAPSULATED COMPONENT	(AEP, UK, EE, CIS/N500:AEP2)
RB1	1-239-260-11	ENCAPSULATED COMPONENT	(G, IT, E, AUS/N500:MX, AR, PX)
RB2	1-236-463-11	ENCAPSULATED COMPONENT	(AEP, UK, EE, CIS/N500:AEP2)

< VARIABLE RESISTOR >

RV1	1-238-601-11	RES, ADJ, CARBON 22K	
RV2	1-238-601-11	RES, ADJ, CARBON 22K	
RV101	1-238-601-11	RES, ADJ, CARBON 22K	(CIS)

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety.
Replace only with part number specified.

MAIN **PANEL**

Ref. No.	Part No.	Description			Remark
RV102	1-238-599-11	RES, ADJ, CARBON 4.7K(CIS)			
		< RELAY >			
RY801	1-755-067-11	RELAY			
		< TERMINAL >			
TM1	1-537-488-11	TERMINAL BOARD (ANT)			(AEP, UK, G, IT, EE, CIS/N500:AEP2)
TM1	1-537-238-21	TERMINAL BOARD			(E, AUS/N500:MX, AR, PX)
		< TEST PIN >			
* TP101	1-560-061-00	PIN, CONNECTOR 3P (CIS)			
* TP102	1-560-061-00	PIN, CONNECTOR 3P (CIS)			
		< VIBRATOR >			
X201	1-579-900-21	VIBRATOR, CRYSTAL (4.332MHz)			(AEP, UK, G, IT, EE/N500:AEP2)
		< VIBRATOR >			
XT51	1-760-549-11	VIBRATOR, CRYSTAL (4.5MHz)			

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Ref. No.	Part No.	Description			Remark
*	A-4377-261-A	PANEL BOARD, COMPLETE (N500:AEP, AEP2, UK)			
*	A-4377-824-A	PANEL BOARD, COMPLETE (N500:AUS, PX)			
*	A-4377-827-A	PANEL BOARD, COMPLETE (N500:EE)			
*	A-4377-833-A	PANEL BOARD, COMPLETE (N500:E, MX, AR)			
*	A-4377-835-A	PANEL BOARD, COMPLETE (N500:CIS)			
*	A-4377-919-A	PANEL BOARD, COMPLETE (N500:G, IT)			
*	A-4377-832-A	PANEL BOARD, COMPLETE (N600:AEP, UK)			
*	A-4378-423-A	PANEL BOARD, COMPLETE (N600:AUS)			
*	A-4377-818-A	PANEL BOARD, COMPLETE (N600:EE)			
*	A-4378-420-A	PANEL BOARD, COMPLETE (N600:E)			
*	A-4377-820-A	PANEL BOARD, COMPLETE (N600:CIS)			
*	A-4377-928-A	PANEL BOARD, COMPLETE (N600:G, IT)			

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Ref. No.	Part No.	Description			Remark
*	4-949-935-01	CUSHION (FL)			
*	4-969-714-01	HOLDER, FL TUBE			
		< CAPACITOR >			
C701	1-124-589-11	ELECT	47uF	20%	16V
C702	1-161-494-00	CERAMIC	0.022uF		25V
C703	1-161-494-00	CERAMIC	0.022uF		25V
C704	1-126-245-11	ELECT	330uF	20%	6.3V
C705	1-126-245-11	ELECT	330uF	20%	6.3V
C706	1-164-159-11	CERAMIC	0.1uF		50V
C707	1-164-159-11	CERAMIC	0.1uF		50V
C708	1-164-159-11	CERAMIC	0.1uF		50V
C709	1-162-286-21	CERAMIC	220PF	10%	50V
C710	1-162-286-21	CERAMIC	220PF	10%	50V
C711	1-162-286-21	CERAMIC	220PF	10%	50V
C712	1-162-286-21	CERAMIC	220PF	10%	50V
C713	1-162-286-21	CERAMIC	220PF	10%	50V
C714	1-162-286-21	CERAMIC	220PF	10%	50V
C715	1-162-286-21	CERAMIC	220PF	10%	50V
C716	1-162-286-21	CERAMIC	220PF	10%	50V
C717	1-162-286-21	CERAMIC	220PF	10%	50V
C718	1-162-286-21	CERAMIC	220PF	10%	50V
C719	1-162-286-21	CERAMIC	220PF	10%	50V
C720	1-162-286-21	CERAMIC	220PF	10%	50V
C721	1-162-286-21	CERAMIC	220PF	10%	50V
C722	1-162-286-21	CERAMIC	220PF	10%	50V
C723	1-162-286-21	CERAMIC	220PF	10%	50V
C724	1-162-286-21	CERAMIC	220PF	10%	50V
C725	1-162-286-21	CERAMIC	220PF	10%	50V
C726	1-162-286-21	CERAMIC	220PF	10%	50V
C727	1-162-286-21	CERAMIC	220PF	10%	50V
C728	1-162-286-21	CERAMIC	220PF	10%	50V
C729	1-162-286-21	CERAMIC	220PF	10%	50V
C730	1-162-286-21	CERAMIC	220PF	10%	50V
C731	1-162-286-21	CERAMIC	220PF	10%	50V
C732	1-162-286-21	CERAMIC	220PF	10%	50V
C733	1-162-286-21	CERAMIC	220PF	10%	50V
C734	1-162-286-21	CERAMIC	220PF	10%	50V
C735	1-162-286-21	CERAMIC	220PF	10%	50V
C736	1-162-286-21	CERAMIC	220PF	10%	50V
C737	1-162-286-21	CERAMIC	220PF	10%	50V
C738	1-162-286-21	CERAMIC	220PF	10%	50V
C739	1-162-286-21	CERAMIC	220PF	10%	50V
C740	1-162-286-21	CERAMIC	220PF	10%	50V
C741	1-162-286-21	CERAMIC	220PF	10%	50V
C742	1-162-286-21	CERAMIC	220PF	10%	50V
C743	1-162-306-11	CERAMIC	0.01uF	30%	16V
C744	1-162-215-31	CERAMIC	47PF	5%	50V
C745	1-162-294-31	CERAMIC	0.001uF	10%	50V
C746	1-162-294-31	CERAMIC	0.001uF	10%	50V
C747	1-162-294-31	CERAMIC	0.001uF	10%	50V
C748	1-126-177-11	ELECT	100uF	20%	10V
C749	1-162-286-21	CERAMIC	220PF	10%	50V
C750	1-102-948-00	CERAMIC	11PF	5%	50V
C751	1-102-948-00	CERAMIC	11PF	5%	50V
C752	1-126-301-11	ELECT	1uF	20%	50V
C753	1-126-301-11	ELECT	1uF	20%	50V
C754	1-124-261-00	ELECT	10uF	20%	50V
C756	1-161-494-00	CERAMIC	0.022uF		25V

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
* CN701	1-568-858-11	SOCKET, CONNECTOR 15P	
* CN702	1-568-858-11	SOCKET, CONNECTOR 15P	
* CN703	1-568-852-11	SOCKET, CONNECTOR 9P	(AEP, UK, G, IT, EE/N500:AEP2)
* CN703	1-568-850-11	SOCKET, CONNECTOR 7P	(CIS, E, AUS/N500:MX, AR, PX)

< DIODE >

Ref. No.	Part No.	Description	Remark
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	(AEP, UK, EE, AUS/N500:AEP2, PX)
D705	8-719-987-63	DIODE 1N4148M	(G, IT, EE, E, AUS/N500:MX, AR, PX)
D706	8-719-987-63	DIODE 1N4148M	(CIS, E, AUS/N500:MX, AR, PX)
D707	8-719-987-63	DIODE 1N4148M (N600/N500:CIS)	
D708	8-719-987-63	DIODE 1N4148M	

< FILTER >

Ref. No.	Part No.	Description	Remark
FL701	1-517-380-11	INDICATOR TUBE, FLUORESCENT	

< IC >

Ref. No.	Part No.	Description	Remark
IC701	8-759-327-88	IC uPD78044AGF-068-3B9	
IC702	8-741-810-59	IC SBX1810-59	

< COIL >

Ref. No.	Part No.	Description	Remark
L701	1-410-521-11	INDUCTOR 100uH	

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q701	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q703	8-729-900-36	TRANSISTOR DTC124ES	
Q704	8-729-900-36	TRANSISTOR DTC124ES	

< RESISTOR >

Ref. No.	Part No.	Description				Remark
R701	1-247-807-31	CARBON	100	5%	1/4W	
R702	1-247-807-31	CARBON	100	5%	1/4W	
R703	1-247-807-31	CARBON	100	5%	1/4W	
R704	1-247-807-31	CARBON	100	5%	1/4W	
R709	1-249-417-11	CARBON	1K	5%	1/4W	
R710	1-249-417-11	CARBON	1K	5%	1/4W	
R711	1-249-433-11	CARBON	22K	5%	1/4W	
R712	1-249-433-11	CARBON	22K	5%	1/4W	
R713	1-249-429-11	CARBON	10K	5%	1/4W	
R714	1-249-429-11	CARBON	10K	5%	1/4W	
R715	1-249-425-11	CARBON	4.7K	5%	1/4W	
R716	1-249-429-11	CARBON	10K	5%	1/4W	
R717	1-249-393-11	CARBON	10	5%	1/4W	
R718	1-249-423-11	CARBON	3.3K	5%	1/4W	
R719	1-247-807-31	CARBON	100	5%	1/4W	
R720	1-249-407-11	CARBON	150	5%	1/4W	
R721	1-249-409-11	CARBON	220	5%	1/4W	
R722	1-249-411-11	CARBON	330	5%	1/4W	
R723	1-249-413-11	CARBON	470	5%	1/4W	
R724	1-249-415-11	CARBON	680	5%	1/4W	
R725	1-249-417-11	CARBON	1K	5%	1/4W	
R726	1-249-419-11	CARBON	1.5K	5%	1/4W	
R727	1-249-421-11	CARBON	2.2K	5%	1/4W	
R728	1-249-423-11	CARBON	3.3K	5%	1/4W	
R729	1-249-425-11	CARBON	4.7K	5%	1/4W	
R730	1-249-429-11	CARBON	10K	5%	1/4W	
R731	1-249-433-11	CARBON	22K	5%	1/4W	
R732	1-249-423-11	CARBON	3.3K	5%	1/4W	
R733	1-247-807-31	CARBON	100	5%	1/4W	
R734	1-249-407-11	CARBON	150	5%	1/4W	
R735	1-249-409-11	CARBON	220	5%	1/4W	
R736	1-249-411-11	CARBON	330	5%	1/4W	
R737	1-249-413-11	CARBON	470	5%	1/4W	
R738	1-249-415-11	CARBON	680	5%	1/4W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
R740	1-249-419-11	CARBON	1.5K	5%	1/4W	
R741	1-249-421-11	CARBON	2.2K	5%	1/4W	
R742	1-249-423-11	CARBON	3.3K	5%	1/4W	
R746	1-249-417-11	CARBON	1K	5%	1/4W	
R747	1-249-423-11	CARBON	3.3K	5%	1/4W	
R748	1-249-441-11	CARBON	100K	5%	1/4W	
R749	1-249-441-11	CARBON	100K	5%	1/4W	
R750	1-249-441-11	CARBON	100K	5%	1/4W	
R751	1-249-441-11	CARBON	100K	5%	1/4W	
R752	1-249-441-11	CARBON	100K	5%	1/4W	
R753	1-249-441-11	CARBON	100K	5%	1/4W	
R754	1-249-441-11	CARBON	100K	5%	1/4W	
R755	1-249-441-11	CARBON	100K	5%	1/4W	
R756	1-249-441-11	CARBON	100K	5%	1/4W	
R757	1-249-441-11	CARBON	100K	5%	1/4W	
R758	1-249-441-11	CARBON	100K	5%	1/4W	
R759	1-249-441-11	CARBON	100K	5%	1/4W	
R761	1-249-417-11	CARBON	1K	5%	1/4W	
R762	1-249-421-11	CARBON	2.2K	5%	1/4W	
R763	1-249-417-11	CARBON	1K	5%	1/4W	
R764	1-249-417-11	CARBON	1K	5%	1/4W	
R765	1-249-417-11	CARBON	1K	5%	1/4W	
R766	1-249-429-11	CARBON	10K	5%	1/4W	
R767	1-249-429-11	CARBON	10K	5%	1/4W	

PANEL

Ref. No.	Part No.	Description	Remark
R768	1-249-429-11	CARBON 10K 5% 1/4W	
R769	1-249-441-11	CARBON 100K 5% 1/4W	
R770	1-247-887-00	CARBON 220K 5% 1/4W	(UK, EE, CIS, E, AUS/N500:AEP2, MX, AR, PX)
		< COMPOSITION CIRCUIT BLOCK >	
RB701	1-232-967-11	COMPOSITION CIRCUIT BLOCK	
		< SWITCH >	
S701	1-554-303-21	SWITCH, TACTILE (DANCE/5)	
S702	1-554-303-21	SWITCH, TACTILE (EQ MEMORY)	
S703	1-554-303-21	SWITCH, TACTILE (CHARACTER)	
S704	1-554-303-21	SWITCH, TACTILE (ENTER/NEXT)	
S705	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▽)	
S706	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ◁)	
S707	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL △)	
S708	1-554-303-21	SWITCH, TACTILE (CURSOR CONTROL ▷)	
S709	1-554-303-21	SWITCH, TACTILE (DISPLAY)	
S710	1-554-303-21	SWITCH, TACTILE (TUNING -)	
S711	1-554-303-21	SWITCH, TACTILE (TUNING MODE)	
S712	1-554-303-21	SWITCH, TACTILE (TUNING MEMORY)	
S713	1-554-303-21	SWITCH, TACTILE (TUNING +)	
S714	1-554-303-21	SWITCH, TACTILE (TUNER/BAND)	
S715	1-554-303-21	SWITCH, TACTILE (CLASSIC/4)	
S716	1-554-303-21	SWITCH, TACTILE (JAZZ/3)	
S717	1-554-303-21	SWITCH, TACTILE (POPS/2)	
S718	1-554-303-21	SWITCH, TACTILE (ROCK/1)	
S719	1-554-303-21	SWITCH, TACTILE (P·FILE)	
S720	1-554-303-21	SWITCH, TACTILE (TIMER SET)	
S721	1-554-303-21	SWITCH, TACTILE (CLOCK SET)	
S722	1-554-303-21	SWITCH, TACTILE (DAILY)	
S723	1-554-303-21	SWITCH, TACTILE (REC)	
S724	1-554-303-21	SWITCH, TACTILE (EON)	(AEP, UK, G, IT, EE/N500:AEP2)
S725	1-554-303-21	SWITCH, TACTILE (PTY)	(AEP, UK, G, IT, EE/N500:AEP2)
		< VIBRATOR >	
X701	1-760-096-11	VIBRATOR, CRYSTAL (4.19MHz)	

****

MISCELLANEOUS

****

Ref. No.	Part No.	Description	Remark
3	1-769-544-11	WIRE (FLAT TYPE) (15 CORE)	
5	1-769-546-11	WIRE (FLAT TYPE) (7 CORE)	(CIS, E, AUS/N500:MX, AR, PX)
5	1-769-547-11	WIRE (FLAT TYPE) (9 CORE)	(AEP, UK, G, IT, EE/N500:AEP2)
6	1-769-545-11	WIRE (FLAT TYPE) (15 CORE)	

ACCESSORIES & PACKING MATERIALS

****

Ref. No.	Part No.	Description	Remark
*	4-973-307-01	CUSHION (UPPER)	(UK, EE, CIS, E, AUS/N500:MX, AR, PX)
*	4-973-639-01	INDIVIDUAL CARTON (N500:AEP, AEP2, UK, G, IT)	
*	4-973-639-11	INDIVIDUAL CARTON (N600:AEP, UK, G, IT)	
*	4-973-650-01	CUSHION (LOWER)	(UK, EE, CIS, E, AUS/N500:MX, AR, PX)
*	4-973-868-01	CUSHION (AEP, G, IT/N500:AEP2)	

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Consumer A&V Products Company
Home A&V Products Div.

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Quality Engineering Dept.

TAN-N500/N600

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model
TAN-N500/N600
PX Model
TAN-N500

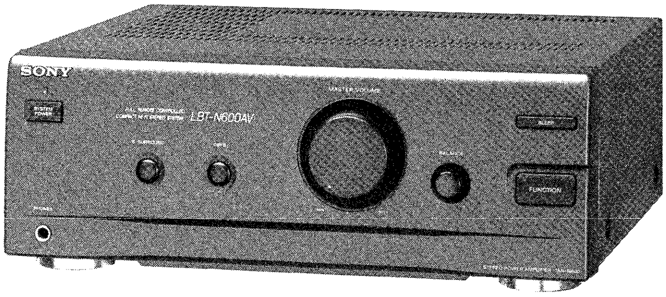

Photo: TAN-N600

TAN-N500/N600 are the Amplifier Section in LBT-N500/N550/550K/550P and LBT-N600AV/N650AV.

SPECIFICATIONS

DIN power output
40 W +40 W (6 ohms, at 1 kHz)
Continuous RMS power output
50 W + 50 W (6 ohms, at 1 kHz, 5% THD)
Music power output
100 W + 100 W (6 ohms, at 1 kHz, 10% THD)
Frequency response
15 Hz to 50 kHz $^{+0}_{-3}$ dB
Power requirements
European models:
220 - 230 V AC, 50/60 Hz
Australian model:
220 - 240 V AC, 50/60 Hz
Malaysian model:
220 - 240 V AC, 50/60 Hz
Mexican model:
120 V AC, 50/60 Hz
Other models:
110 - 120 V or 220 - 240 V AC adjustable, 50/60 Hz

Power consumption
European models:
135 W
Other models:
195 W

Output	Jack type	Impedance
SURROUND SPEAKER (N500)	–	Accepts speakers up to 16 ohms
PHONES	Stereophone	Accepts headphones of 8 ohms or more

Weight Approx. 5.4 kg
Dimensions
Approx. 355 x 130 x 335 mm (w/h/d, including projections)

Design and specifications are subject to change without notice.

STEREO POWER AMPLIFIER

SONY®

TABLE OF CONTENTS

Section *Title* *Page*

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1. GENERAL

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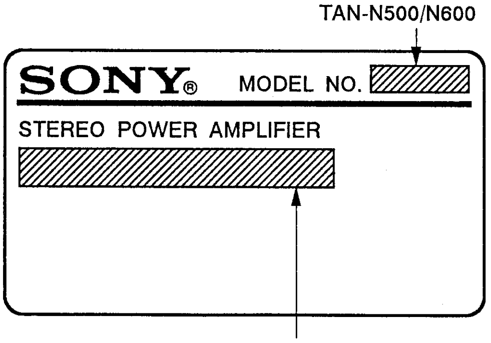
4. EXPLODED VIEWS 15

5. ELECTRICAL PARTS LIST 18

MODEL IDENTIFICATION

– Specification Label Printed on Back Panel –



AEP, German, Italian, East European,
CIS model : AC: 220 V-230 V ~50/60 Hz 135 W
UK model : AC: 220 V-230 V ~50 Hz
Australian,
Malaysia model : AC: 220 V-240 V ~50/60 Hz 195 W
E, Saudi Arabia, Singapore,
PX model : AC: 110 V-120 V/220 V-240 V ~50/60 Hz 195 W
Mexican model : AC: 120 V ~60 Hz 195 W

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

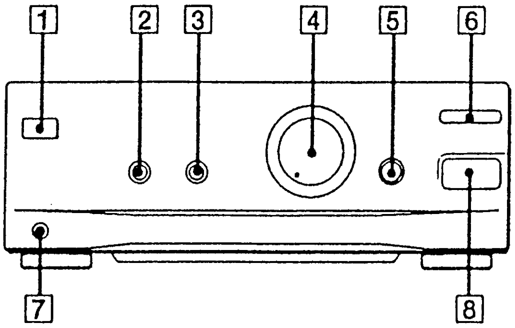
SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. INDEX TO PARTS AND CONTROLS

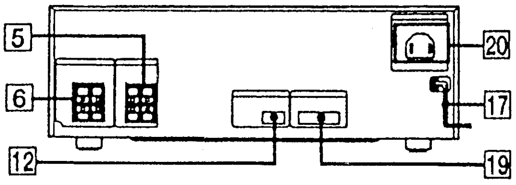
Front Panel

Power Amplifier (TAN-N500/N600)



1 SYSTEM POWER switch
2 SURROUND button (N500)
2 S-SURROUND button (N600)
3 DBFB button
4 VOLUME control (N500)
4 MASTER VOLUME control (N600)
5 BALANCE control
6 SLEEP button
7 PHONES jack
8 FUNCTION button

Rear Panel

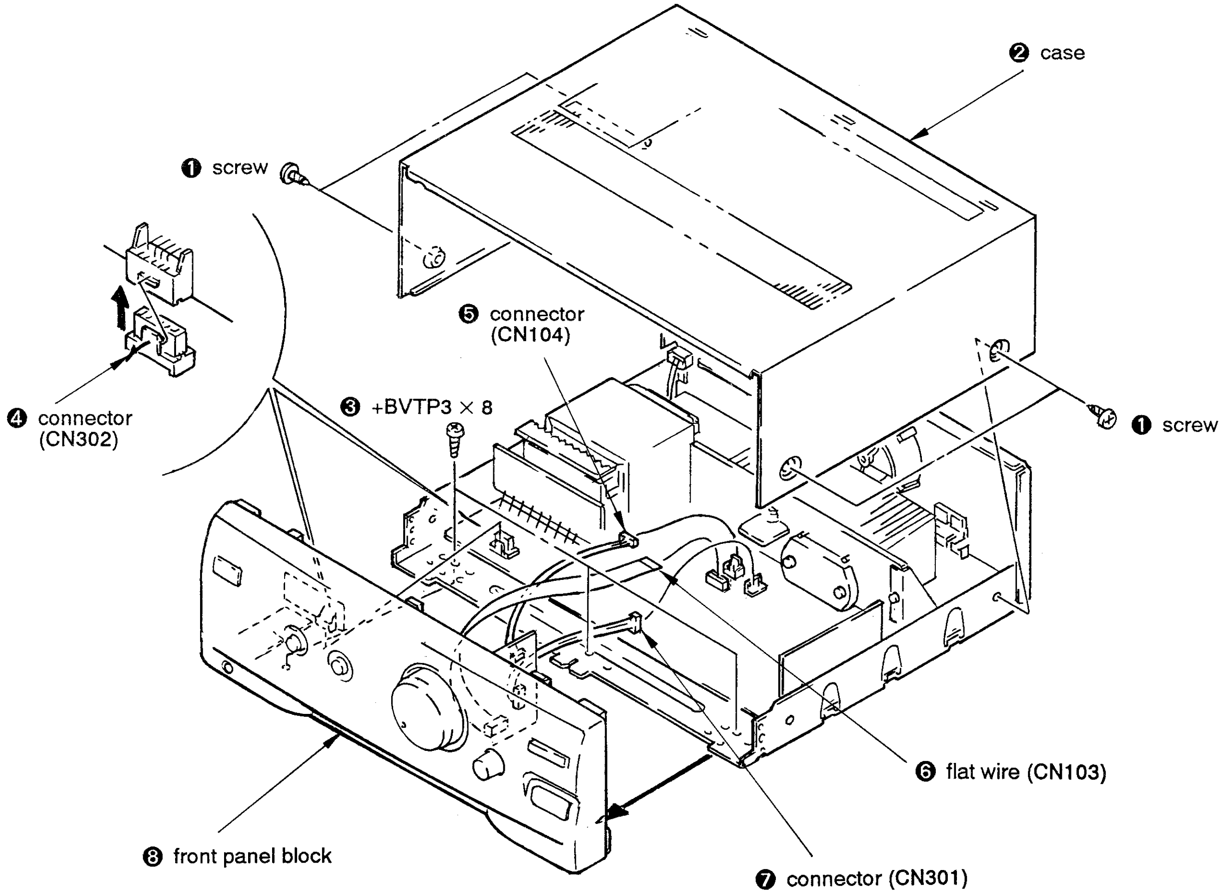


5 SPEAKER connectors
6 SURROUND SPEAKER connectors (N500)
12 SYSTEM CONTROL 4 terminals (N600)
17 AC power cord
19 SYSTEM CONTROL 2 terminals
20 AC OUTLET (N600)

SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

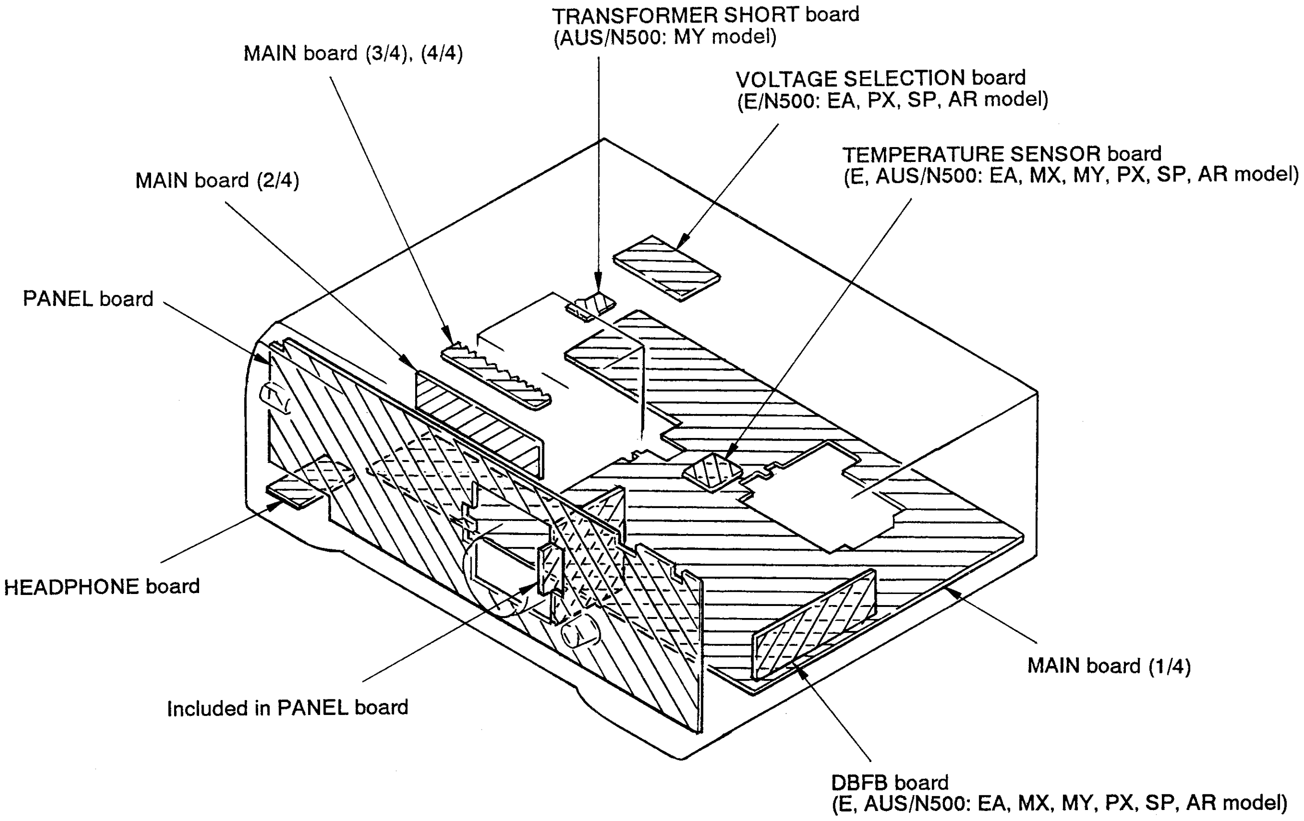
FRONT PANEL ASS'Y



➋ case
➊ screw
➎ connector (CN104)
➊ screw
➍ connector (CN302)
➌ +BVTP3 × 8
➏ flat wire (CN103)
➑ front panel block
➐ connector (CN301)

SECTION 3
DIAGRAMS

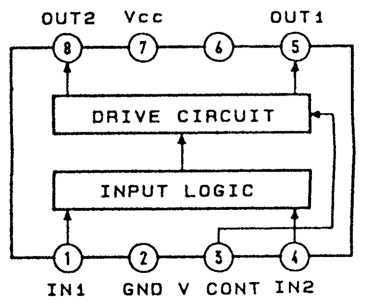
3-1. CIRCUIT BOARDS LOCATION


TRANSFORMER SHORT board
(AUS/N500: MY model)
MAIN board (3/4), (4/4)
VOLTAGE SELECTION board
(E/N500: EA, PX, SP, AR model)
TEMPERATURE SENSOR board
(E, AUS/N500: EA, MX, MY, PX, SP, AR model)
MAIN board (2/4)
PANEL board
HEADPHONE board
Included in PANEL board
MAIN board (1/4)
DBFB board
(E, AUS/N500: EA, MX, MY, PX, SP, AR model)

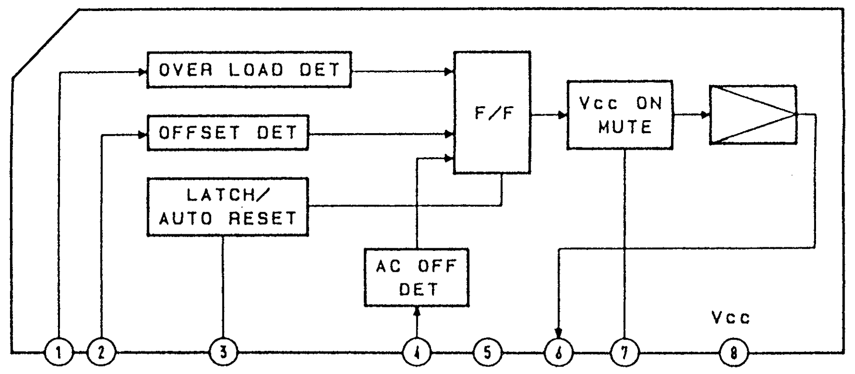
- Abbreviation
  EA : Saudi Arabia model
  MX : Mexican model
  SP : Singapore model
  MY : Malaysia model
  AUS : Australian model
  AR : Argentine model

- **IC Block Diagrams**

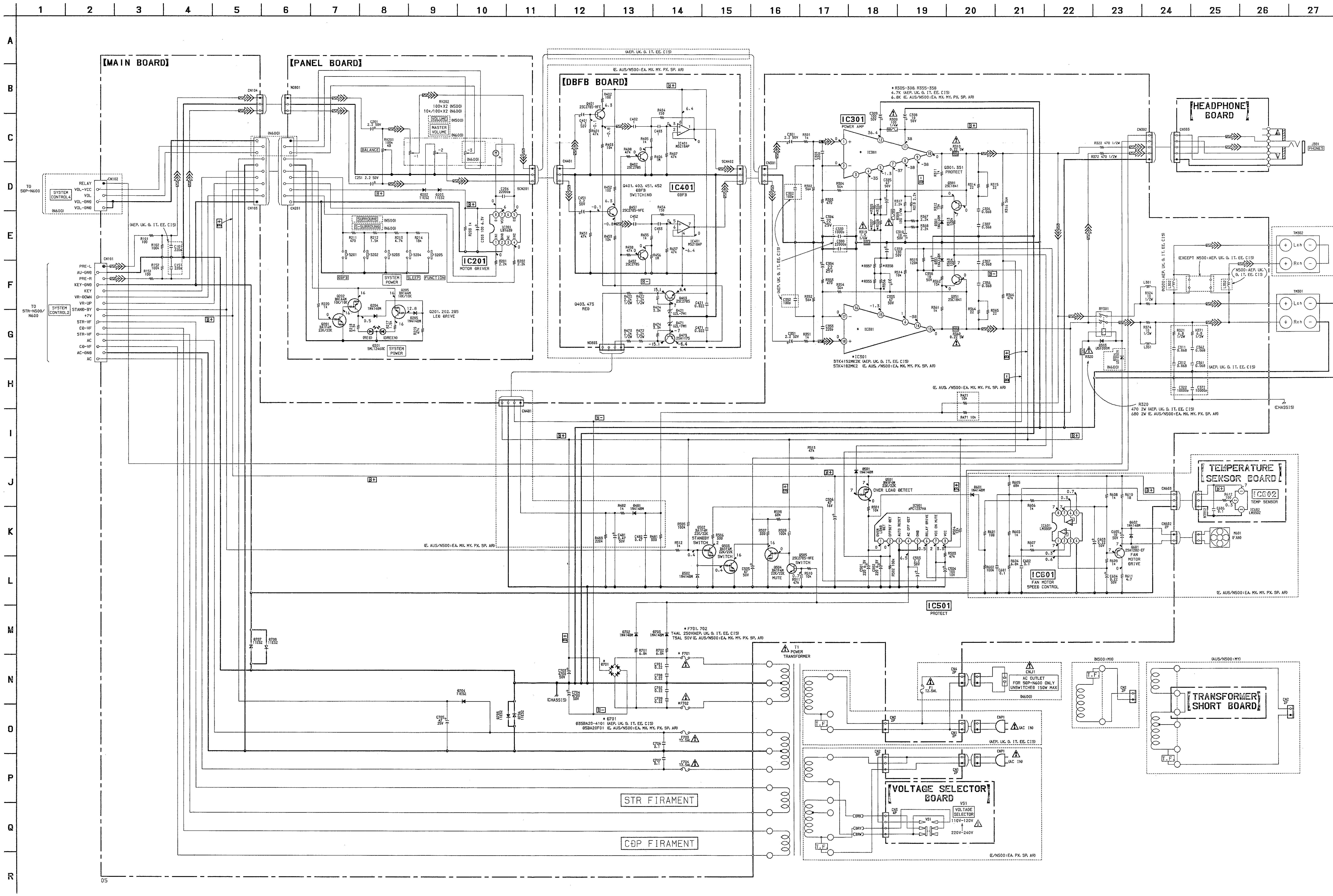
IC201 LB1639


OUT2
Vcc
OUT1
DRIVE CIRCUIT
INPUT LOGIC
IN1
GND
V CONT
IN2
1
2
3
4
5
6
7
8

IC501 μPC1237HA


OVER LOAD DET
OFFSET DET
LATCH/
AUTO RESET
F/F
Vcc ON
MUTE
AC OFF
DET
Vcc
1
2
3
4
5
6
7
8

3-2. SCHEMATIC DIAGRAM


[MAIN BOARD]
[PANEL BOARD]
[DBFB BOARD]
[HEADPHONE BOARD]
[TEMPERATURE SENSOR BOARD]
[TRANSFORMER SHORT BOARD]
[VOLTAGE SELECTOR BOARD]
IC201
MOTOR DRIVER
IC401
DBFB
IC301
POWER AMP
IC501
PROTECT
IC601
FAN MOTOR SPEED CONTROL
IC602
TEMP SENSOR
STR FIRAMENT
CDP FIRAMENT
TO SDP-N600
TO STR-N500/N600
SYSTEM CONTROL1
SYSTEM CONTROL2
MASTER VOLUME
BALANCE
SYSTEM POWER
SLEEP
FUNCTION
STANDBY SWITCH
MUTE
OVER LOAD DETECT
FAN MOTOR DRIVE
SURROUND SPEAKER IMPEDANCE USE 8-16Ω
SPEAKER IMPEDANCE USE 6-16Ω
PHONES
T1 POWER TRANSFORMER
AC OUTLET FOR SDP-N600 ONLY UNSWITCHED 150W MAX
AC IN
VOLTAGE SELECTOR 110V-120V 220V-240V
(CHASSIS)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- :nonflammable resistor.
- :fusible resistor.
- ☐ :panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- B+ :B+ Line.
- B- :B- Line.
- Voltages are dc with respect to ground under no-signal conditions.
  no mark: PHONO
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Abbreviation
  N500: TAN-N500
  N600: TAN-N600
  G :German model.
  IT :Italian model.
  EE :East European model.
  EA :Saudi Arabia model.
  AR :Argentine model.
  AUS: Australian model.
  SP :Singapore model.
  MY :Malaysia model.
  MX :Mexican model.
- Signal path.
  ⇒ :PHONO

3-3. PRINTED WIRING BOARDS

- **Semiconductor Location**

Ref. No.	Location
D201	J-1
D202	H-8
D203	H-8
D204	I-3
D205	I-2
D301	G-20
D303	G-16
△ D304	B-22
D351	G-18
○ D421	C-9
○ D471	C-9
○ D481	H-18
○ D501	H-18
D502	J-16
○ D601	J-19
○ D602	B-22
D701	I-23
D702	J-27
D703	J-27
D704	G-23
D705	G-23
D706	H-23
D707	H-22
D708	G-22
IC201	H-7
IC301	F-19
○ IC401	C-9
IC501	H-16
○ IC601	I-19
○ IC602	D-19
Q201	I-3
Q202	I-3
Q205	I-2
Q301	G-20
Q351	G-17
○ Q401	D-8
○ Q402	D-9
○ Q451	B-8
○ Q452	B-9
Q501	I-17
Q502	I-16
Q503	I-16
Q504	I-16
Q505	I-16
○ Q601	I-20

Note:
○ : E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
△ : N600

Note:
- ○—— : parts extracted from the component side.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing.
- Abbreviations

G	: German model
IT	: Italian model
EA	: Saudi Arabia model
EE	: East European model
MX	: Mexican model
SP	: Singapore model
MY	: Malaysia model
AUS	: Australian model
AR	: Argentine model

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34
A B C D E F G H I J
【HEADPHONE BOARD】(1/2)
【HEADPHONE BOARD】(2/2)
JW501 JW502 JW503 JW504 JW505
1-654-890-
11 (15)
J301 PHONES
TAN-N500/N600: E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
【DBFB BOARD】
(GRY) WHT BLK PIK
CN401
IC401
1-656-920-
11 (16)
TAN-N500/N600: AEP, UK, G, IT, EE, CIS MODEL
【PANEL BOARD】
Included in PANEL BOARD
S202 SURROUND
S201
S205 FUNCTION
S204 SLEEP
SYSTEM POWER
TAN-N500
TAN-N600
1-654-893-
11
05
TAN-N500
TM302
SURROUND SPEAKER (IMPEDANCE USE 8-16Ω)
R L
TM301
SPEAKER (IMPEDANCE USE 6-16Ω)
【MAIN BOARD】(1/4)
TAN-N500: AEP, UK, G, IT, EE, CIS MODEL
TAN-N500/N600: AEP, UK, G, IT, EE, CIS, MODEL
TAN-N500/N600: E, AUS/N500: EA, MX, MY, PX, SP, AR MODEL
M601 FAN
CN602
TAN-N600
CN102 SYSTEM CONTROL 4
CN101 SYSTEM CONTROL 2
TAN-N500: MY, AUS, MX MODEL
TAN-N500/N600: AEP, UK, G, IT, EE CIS MODEL
【TEMPERATURE SENSOR BOARD】
WHT
1-654-892-
12 (15)
TAN-N500/N600: AEP, UK, G, IT, EE, CIS MODEL
TAN-N600
TAN-N600
F1
BRN BLU
CN1 CN2 CN4
CNJ1
AC OUTLET (FOR SDP-N600 ONLY UNSWITCHED 150W MAX)
CNP1
AC IN
TAN-N500/N600: AEP, UK, G, IT, EE, CIS, AUS /N500: MX, MY MODEL
TAN-N500/N600: E/N500: EA, PX, SP, AR MODEL
BLU RED VIO
TAN-N500/N600: AEP, UK, G, IT, EE, CIS MODEL
T1 POWER TRANSFORMER
RED BLU
【MAIN BOARD】(3/4)
【MAIN BOARD】(2/4)
TAN-N500/N600: E/N500: EA, PX, SP, AR MODEL
【VOLTAGE SELECTOR BOARD】
LP2
VS1 VOLTAGE SELECTOR
110V-120V 220V-240V
CN3
1-654-891-
11 (15)
ORG GRY VIO BRN
T1 POWER TRANSFORMER
RED BRN ORG GRY BLU
【MAIN BOARD】(4/4)
JW301 JW302 JW303 JW304 JW305 JW306 JW307 JW308 JW309 JW310
TAN-N500: MX MODEL
T1 POWER TRANSFORMER
RED BLU
TAN-N500/N600: AUS/N500: MY MODEL
【TRANSFORMER SHORT BOARD】
1-656-361-
11 (15)
T1 POWER TRANSFORMER
RED BLU
IC501
EB1
CHASSIS
CN302
TAN-N600
TAN-N500/N600: E, AUS, /N500: EA, MX, MY, PX, SP, AR MODEL
TAN-N500/N600: AEP, UK, G, IT, EE, CIS MODEL
TAN-N500/N600: E, AUS/ N500: EA, MX, MY, PX, SP, AR MODEL
1-654-889-
14 (15)
3
2-3
1-3
※

※: NOT REPLACEABLE: BUILT IN TRANSFORMER

SECTION 4
EXPLODED VIEWS

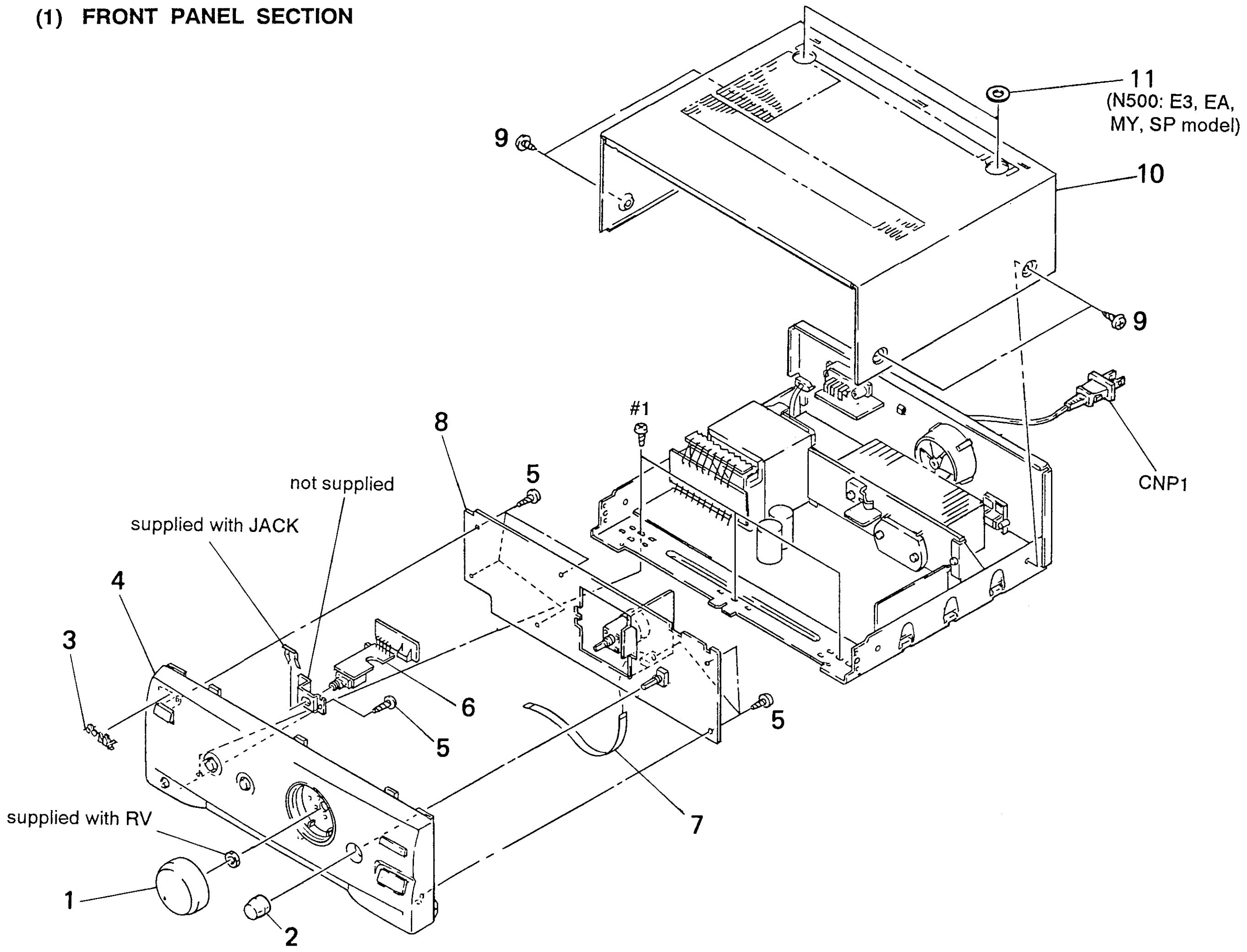
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Items marked "＊" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Abbreviation
  G : German model
  MX : Mexican model
  AR : Argentine model
  IT : Italian model
  SP : Singapore model
  E2 : 120 V AC area
  AEP1, G1, IT1, EE1, CIS1 : Model for LBT-N500
  EA : Saudi Arabia model
  MY : Malaysia model
  E3 : 240 V AC area
  EE : East European model
  AUS : Australian model
  AEP2, UK2, G2, IT2, CIS2 : Model for LBT-N550

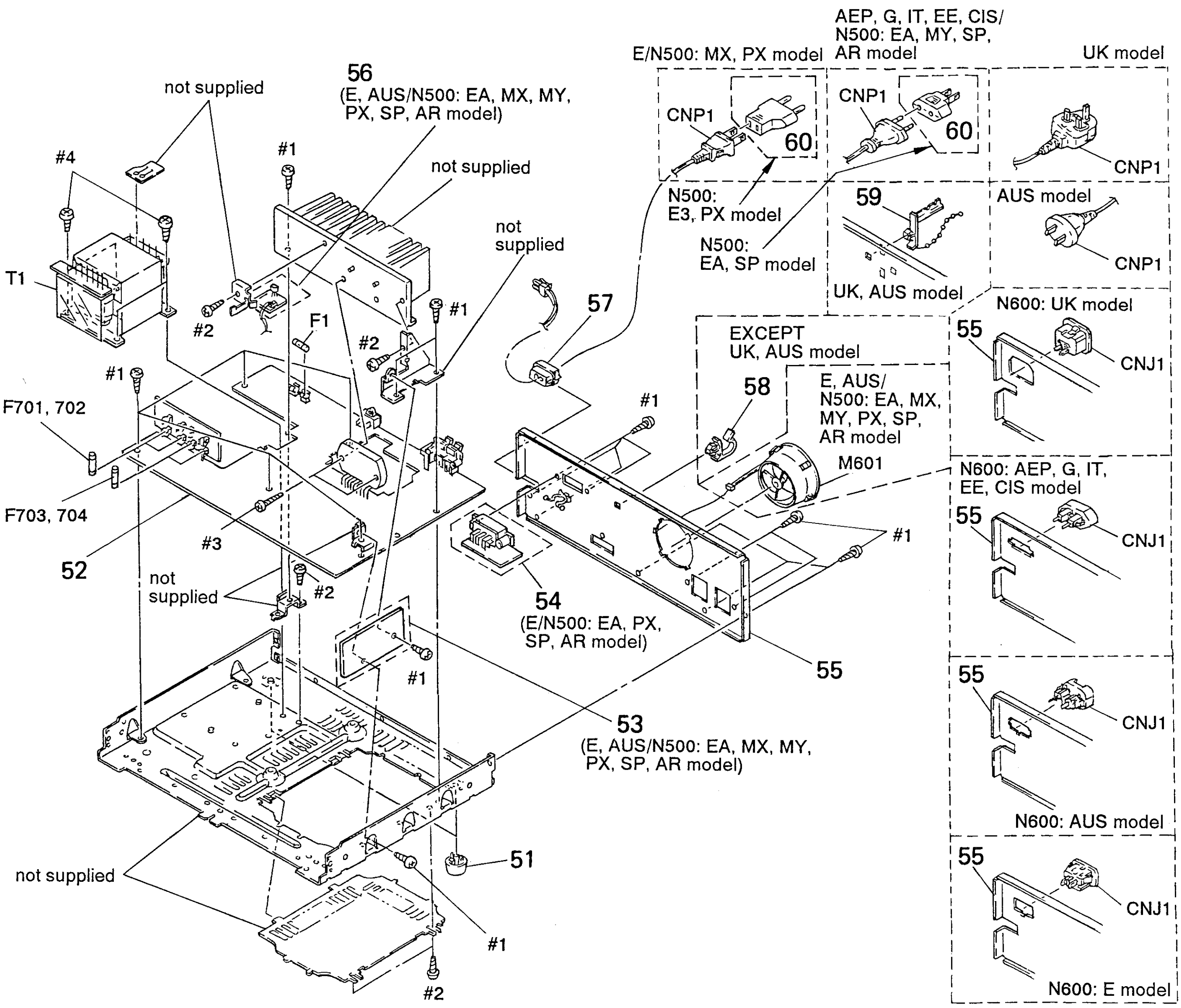
(1) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-969-683-11	KNOB (V)	
2	4-962-703-22	KNOB (SUR)	
3	4-963-404-21	EMBLEM (5-A), SONY (EXCEPT N600:AUS, E)	
4	X-4945-603-1	PANEL ASSY, FRONT (N500:AEP1, G1, IT1, EE1, CIS1)	
4	X-4945-604-1	PANEL ASSY, FRONT (N500:E2, MX, PX, AR, AUS, AEP2, UK2, G2, IT2, CIS2)	
4	X-4945-605-1	PANEL ASSY, FRONT (N500:E3, EA, MY, SP)	
4	X-4945-606-1	PANEL ASSY, FRONT (N600:AEP, UK, G, IT, EE, CIS)	
4	X-4946-128-1	PANEL ASSY, FRONT (N600:E, AUS)	
5	4-951-620-01	SCREW (2.6X8), +BVTP	

Ref. No.	Part No.	Description	Remark
＊ 6	1-654-890-11	HEADPHONE BOARD	
7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
＊ 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
＊ 8	A-4377-249-A	PANEL BOARD, COMPLETE (N600)	
＊ 8	A-4377-273-A	PANEL BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)	
＊ 8	A-4377-331-A	PANEL BOARD, COMPLETE (N500:E, EA, MX, MY, PX, SP, AR, AUS)	
9	3-363-099-01	SCREW (CASE 3 TP2)	
10	4-969-778-11	CASE (N600)	
＊ 10	4-969-778-51	CASE (N500)	
11	4-975-837-01	STOPPER (N500:E3, EA, MY, SP)	

(2) CHASSIS SECTION


AEP, G, IT, EE, CIS/
N500: EA, MY, SP,
AR model
E/N500: MX, PX model
UK model
56
(E, AUS/N500: EA, MX, MY, PX, SP, AR model)
not supplied
CNP1
60
CNP1
60
CNP1
#4
#1
not supplied
N500:
E3, PX model
59
AUS model
not supplied
N500:
EA, SP model
CNP1
T1
UK, AUS model
57
N600: UK model
#2
F1
#1
#2
EXCEPT
UK, AUS model
55
CNJ1
#1
58
E, AUS/
N500: EA, MX, MY, PX, SP, AR model
F701, 702
#1
M601
N600: AEP, G, IT, EE, CIS model
F703, 704
55
CNJ1
#1
#3
52
not supplied
#2
54
(E/N500: EA, PX, SP, AR model)
#1
55
55
CNJ1
53
(E, AUS/N500: EA, MX, MY, PX, SP, AR model)
N600: AUS model
55
51
not supplied
CNJ1
#1
#2
N600: E model

Ref. No.	Part No.	Description	Remark
51	X-4941-228-1	FOOT ASSY	
* 52	A-4377-248-A	MAIN BOARD, COMPLETE	(N600:AEP, UK, G, IT, EE, CIS)
* 52	A-4377-271-A	MAIN BOARD, COMPLETE	(N500:AEP, UK, G, IT, EE, CIS)
* 52	A-4377-274-A	MAIN BOARD, COMPLETE	(N500:E, EA, PX, SP, AR)
* 52	A-4377-816-A	MAIN BOARD, COMPLETE	(N500:MX, MY, AUS)
* 52	A-4378-418-A	MAIN BOARD, COMPLETE	(N600:AUS)
* 52	A-4378-419-A	MAIN BOARD, COMPLETE	(N600:E)
* 53	A-4378-331-A	DBFB BOARD, COMPLETE	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
* 54	1-654-891-11	VOLTAGE SELECTION BOARD	(E/N500:EA, PX, SP, AR)
* 55	4-969-785-01	PANEL, BACK	(N500:AEP, IT)
* 55	4-969-785-11	PANEL, BACK	(N500:G)
* 55	4-969-785-21	PANEL, BACK	(N500:UK)
* 55	4-969-785-31	PANEL, BACK	(N500:EE, CIS)
* 55	4-970-164-01	PANEL, BACK	(N500:E, AR)
* 55	4-970-164-12	PANEL, BACK	(N500:MY)
* 55	4-970-164-21	PANEL, BACK	(N500:SP)
* 55	4-970-164-31	PANEL, BACK	(N500:MX)
* 55	4-970-164-41	PANEL, BACK	(N500:AUS)
* 55	4-970-164-51	PANEL, BACK	(N500:EA, PX)
* 55	4-970-164-61	PANEL, BACK	(N600:E)
* 55	4-970-164-71	PANEL, BACK	(N600:AUS)
* 55	4-971-710-01	PANEL, BACK	(N600:AEP, IT)
* 55	4-971-710-11	PANEL, BACK	(N600:G)
* 55	4-971-710-21	PANEL, BACK	(N600:UK)
* 55	4-971-710-31	PANEL, BACK	(N600:EE, CIS)
* 56	1-654-892-12	TEMPERATURE SENSOR BOARD	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
* 57	3-703-244-00	BUSHING (2104), CORD	(AEP, UK, G, IT, EE, CIS, AUS/N500:EA, MY, SP, AR)
57	3-703-571-11	BUSHING (S) (4516), CORD	(E/N500:MX, PX)
* 58	4-949-235-01	HOOK	(AEP, G, IT, EE, CIS, E/N500:EA, MX, MY, PX, SP, AR)
59	4-956-370-12	BAND, PLUG FIXED	(UK, AUS)
⚠60	1-569-007-11	ADAPTER, CONVERSION 2P	(N500:E3, PX)
⚠60	1-569-008-11	ADAPTER, CONVERSION 2P	(N500:EA, SP)
⚠CNJ1	1-526-751-12	OUTLET, AC	(N600:UK)
⚠CNJ1	1-526-794-11	OUTLET, AC	(N600:AEP, G, IT, EE, CIS)
⚠CNJ1	1-526-882-00	OUTLET, AC	(N600:E)
⚠CNJ1	1-540-196-11	OUTLET, AC	(N600:AUS)
⚠CNP1	1-558-943-41	CORD, POWER	(E/N500:MX, PX)
⚠CNP1	1-575-651-21	CORD, POWER	(AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)
⚠CNP1	1-696-845-11	CORD, POWER	(AUS)
⚠CNP1	1-751-529-11	CORD, POWER	(UK)
⚠F1	1-532-286-00	FUSE (T2.5A 250V)	(N600)
⚠F701	1-532-299-00	FUSE. (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F701	1-532-350-00	FUSE (T4A 250V)	(AEP, UK, G, IT, EE, CIS)
⚠F702	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F702	1-532-350-00	FUSE (T4A 250V)	(AEP, UK, G, IT, EE, CIS)
⚠F703	1-532-286-00	FUSE (T2.5A 250V)	
⚠F704	1-532-286-00	FUSE (T2.5A 250V)	
M601	X-4942-029-1	CASE ASSY, FAN	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠T1	1-427-773-11	TRANSFORMER, POWER	(AEP, UK, G, IT, EE, CIS)
⚠T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)
⚠T1	1-427-907-11	TRANSFORMER, POWER	(N500:MX)

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

SECTION 5
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA . . : μA . .   uPA . . : μPA . .
  uPB . . : μPB . .   uPC . . : μPC . .   uPD . . : μPD . .
- CAPACITORS
  uF: μF
- COILS
  uH: μH
- Abbreviation G : Geraman IT : Italian EA : Saudi Arabia EE : East European MX : Mexican
  SP : Singapore MY : Malaysia AUS : Australian AR : Argentine E3 : 240V AC area

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-4378-331-A	DBFB BOARD, COMPLETE (E, AUS/N500:EA, MX, MY, PX, SP, AR)			
		***************************************			
		< CAPACITOR >			
C401	1-124-257-00	ELECT	2.2uF	20%	50V
C402	1-136-177-00	FILM	1uF	5%	50V
C403	1-136-177-00	FILM	1uF	5%	50V
C421	1-161-494-00	CERAMIC	0.022uF		25V
C451	1-124-257-00	ELECT	2.2uF	20%	50V
C452	1-136-177-00	FILM	1uF	5%	50V
C453	1-136-177-00	FILM	1uF	5%	50V
C471	1-161-494-00	CERAMIC	0.022uF		25V
		< CONNECTOR >			
* CN401	1-564-506-11	PLUG, CONNECTOR 3P			
		< DIODE >			
D421	8-719-000-84	DIODE UZL-7M1			
D471	8-719-000-84	DIODE UZL-7M1			
		< IC >			
IC401	8-759-634-51	IC M5218AP			
		< TRANSISTOR >			
Q401	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q451	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q452	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q473	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		< RESISTOR >			
R401	1-249-437-11	CARBON	47K	5%	1/4W
R402	1-247-807-31	CARBON	100	5%	1/4W
R403	1-249-429-11	CARBON	10K	5%	1/4W
R404	1-249-407-11	CARBON	150	5%	1/4W
R405	1-249-417-11	CARBON	1K	5%	1/4W
R406	1-247-903-00	CARBON	1M	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R408	1-249-437-11	CARBON	47K	5%	1/4W
R422	1-260-103-11	CARBON	2.2K	5%	1/2W
R423	1-260-103-11	CARBON	2.2K	5%	1/2W
R424	1-249-423-11	CARBON	3.3K	5%	1/4W
R451	1-249-437-11	CARBON	47K	5%	1/4W
R452	1-247-807-31	CARBON	100	5%	1/4W
R453	1-249-429-11	CARBON	10K	5%	1/4W
R454	1-249-407-11	CARBON	150	5%	1/4W
R455	1-249-417-11	CARBON	1K	5%	1/4W
R456	1-247-903-00	CARBON	1M	5%	1/4W
R457	1-249-437-11	CARBON	47K	5%	1/4W
R458	1-249-437-11	CARBON	47K	5%	1/4W
R472	1-260-103-11	CARBON	2.2K	5%	1/2W
R473	1-260-103-11	CARBON	2.2K	5%	1/2W
R474	1-249-423-11	CARBON	3.3K	5%	1/4W
		**			
*	A-4377-248-A	MAIN BOARD, COMPLETE (N600:AEP, UK, G, IT, EE, CIS)			
*	A-4377-271-A	MAIN BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)			
*	A-4377-274-A	MAIN BOARD, COMPLETE (N500:E, EA, PX, SP, AR)			
*	A-4377-816-A	MAIN BOARD, COMPLETE (N500:MX, MY, AUS)			
*	A-4378-418-A	MAIN BOARD, COMPLETE (N600:AUS)			
*	A-4378-419-A	MAIN BOARD, COMPLETE (N600:E)			
		***************************************			
	1-533-217-31	HOLDER, FUSE			
	1-537-770-11	TERMINAL BOARD, GROUND			
		< CAPACITOR >			
C101	1-162-286-31	CERAMIC	220PF	10%	50 (AEP, UK, G, IT, EE, CIS)
C151	1-162-286-31	CERAMIC	220PF	10%	50V (AEP, UK, G, IT, EE, CIS)
C301	1-124-925-11	ELECT	2.2uF	20%	100V
C302	1-162-282-31	CERAMIC	100PF	10%	50V (AEP, UK, G, IT, EE, CIS)

Ref. No.	Part No.	Description	Remark
C303	1-162-286-31	CERAMIC 220PF 10% 50V	
C304	1-126-233-11	ELECT 22uF 20% 50V	
C305	1-124-910-11	ELECT 47uF 20% 50V	
C306	1-137-375-11	FILM 0.068uF 5% 50V	
C307	1-137-375-11	FILM 0.068uF 5% 50V	
C308	1-124-907-11	ELECT 10uF 20% 50V	
C309	1-124-122-11	ELECT 100uF 20% 50V	
C310	1-124-907-11	ELECT 10uF 20% 50V	
C311	1-137-375-11	FILM 0.068uF 5% 50V	(AEP, UK, G, IT, EE, CIS)
C312	1-137-375-11	FILM 0.068uF 5% 50V	(AEP, UK, G, IT, EE, CIS)
C322	1-162-306-11	CERAMIC 0.01uF 20% 16V	(N500:AEP, UK, G, IT, EE, CIS)
C330	1-162-294-31	CERAMIC 0.001uF 10% 50V	(AEP, UK, G, IT, EE, CIS)
C351	1-124-925-11	ELECT 2.2uF 20% 100V	
C352	1-162-282-31	CERAMIC 100PF 10% 50V	(AEP, UK, G, IT, EE, CIS)
C353	1-162-286-31	CERAMIC 220PF 10% 50V	
C354	1-126-233-11	ELECT 22uF 20% 50V	
C355	1-124-910-11	ELECT 47uF 20% 50V	
C356	1-137-375-11	FILM 0.068uF 5% 50V	
C357	1-137-375-11	FILM 0.068uF 5% 50V	
C358	1-124-907-11	ELECT 10uF 20% 50V	
C359	1-124-122-11	ELECT 100uF 20% 50V	
C361	1-137-375-11	FILM 0.068uF 5% 50V	(AEP, UK, G, IT, EE, CIS)
C362	1-137-375-11	FILM 0.068uF 5% 50V	(AEP, UK, G, IT, EE, CIS)
C372	1-162-306-11	CERAMIC 0.01uF 20% 16V	(AEP, UK, G, IT, EE, CIS)
C380	1-161-494-00	CERAMIC 0.022uF 25V	(AEP, UK, G, IT, EE, CIS)
C481	1-124-902-00	ELECT 0.47uF 20% 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C482	1-136-173-00	FILM 0.47uF 5% 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C501	1-104-666-11	ELECT 220uF 20% 6.3V	
C502	1-104-666-11	ELECT 220uF 20% 6.3V	
C503	1-124-925-11	ELECT 2.2uF 20% 100V	
C504	1-124-443-00	ELECT 100uF 20% 10V	
C505	1-124-910-11	ELECT 47uF 20% 50V	
C506	1-104-664-11	ELECT 47uF 20% 16V	
C601	1-164-159-11	CERAMIC 0.1uF 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C602	1-164-159-11	CERAMIC 0.1uF 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C603	1-124-464-11	ELECT 0.22uF 20% 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C604	1-124-464-11	ELECT 0.22uF 20% 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C605	1-124-907-11	ELECT 10uF 20% 50V	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
C701	1-136-169-00	FILM 0.22uF 5% 50V	
C702	1-136-169-00	FILM 0.22uF 5% 50V	
C703	1-126-138-11	ELECT 4700uF 20% 50V	
C704	1-126-138-11	ELECT 4700uF 20% 50V	
C705	1-124-477-11	ELECT 47uF 20% 25V	
C706	1-136-165-00	FILM 0.1uF 5% 50V	
C707	1-136-165-00	FILM 0.1uF 5% 50V	
C708	1-136-169-00	FILM 0.22uF 5% 50V	
C709	1-136-169-00	FILM 0.22uF 5% 50V	

< CONNECTOR >

Ref. No.	Part No.	Description	Remark
CN1	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P	
CN2	1-564-321-00	PIN, CONNECTOR 2P	(AEP, UK, G, IT, EE, CIS, AUS, /N500:MX, MY)
* CN2	1-564-687-11	PIN, CONNECTOR 3P	(E/N500:EA, PX, SP, AR)
* CN4	1-564-321-21	PIN, CONNECTOR 2P	(N600)
CN101	1-770-248-31	HOUSING, CONNECTOR(PC BOARD)16P	(SYSTEM CONTROL 2)
CN102	1-764-016-21	HOUSING, CONNECTOR(PC BOARD)5P	(SYSTEM CONTROL 4) (N600)
* CN103	1-568-828-11	SOCKET, CONNECTOR 9P	(N500)
* CN103	1-568-830-11	SOCKET, CONNECTOR 11P	(N600)
CN104	1-506-468-11	PIN, CONNECTOR 3P	
CN301	1-564-506-11	PLUG, CONNECTOR 3P	
CN302	1-770-594-21	CONNECTOR, BOARD TO BOARD 5P	
CN481	1-506-469-11	PIN, CONNECTOR 4P	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
CN602	1-564-505-11	PLUG, CONNECTOR 2P	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
CN603	1-506-468-11	PIN, CONNECTOR 3P	(E, AUS/N500:EA, MX, MY, PX, SP, AR)

< DIODE >

Ref. No.	Part No.	Description	Remark
D301	8-719-987-63	DIODE 1N4148M	
D303	8-719-815-85	DIODE 1S1585	
D304	8-719-815-85	DIODE 1S1585	(N600)
D351	8-719-987-63	DIODE 1N4148M	

MAIN

Ref. No.	Part No.	Description	Remark
D481	8-719-987-63	DIODE 1N4148M	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-987-63	DIODE 1N4148M	
D601	8-719-987-63	DIODE 1N4148M	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D602	8-719-987-63	DIODE 1N4148M	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D701	8-719-028-23	DIODE D3SBA20-4101	(AEP, UK, G, IT, EE, CIS)
D701	8-719-510-68	DIODE D5SBA20F01	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-024-99	DIODE 11ES2-NTA2B	
D705	8-719-024-99	DIODE 11ES2-NTA2B	
D706	8-719-024-99	DIODE 11ES2-NTA2B	
D707	8-719-024-99	DIODE 11ES2-NTA2B	
D708	8-719-024-99	DIODE 11ES2-NTA2B	

< FUSE >

Ref. No.	Part No.	Description	Remark
⚠F1	1-532-286-00	FUSE (T2.5A 250V)(N600)	
⚠F701	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F701	1-532-350-00	FUSE (T4A 250V)	(AEP, UK, G, IT, EE, CIS)
⚠F702	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F702	1-532-350-00	FUSE (T4A 250V)	(AEP, UK, G, IT, EE, CIS)
⚠F703	1-532-286-00	FUSE (T2.5A 250V)	
⚠F704	1-532-286-00	FUSE (T2.5A 250V)	

< IC >

Ref. No.	Part No.	Description	Remark
IC301	8-749-920-09	IC STK-4152MK2K	(AEP, UK, G, IT, EE, CIS)
IC301	8-749-900-34	IC STK-4182MK2	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
IC501	8-759-111-68	IC uPC1237HA	
IC601	8-759-103-93	IC uPC393C	(E, AUS/N500:EA, MX, MY, PX, SP, AR)

< COIL >

Ref. No.	Part No.	Description	Remark
L301	1-420-872-00	COIL, AIR-CORE	
L302	1-420-872-00	COIL, AIR-CORE	(N500:AEP, UK, G, IT, EE, CIS)
L351	1-420-872-00	COIL, AIR-CORE	
L352	1-420-872-00	COIL, AIR-CORE	(N500:AEP, UK, G, IT, EE, CIS)

< TRANSISTOR >

Ref. No.	Part No.	Description	Remark
Q301	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q351	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q501	8-729-900-63	TRANSISTOR DTA124ES	
Q502	8-729-900-36	TRANSISTOR DTC124ES	
Q503	8-729-900-36	TRANSISTOR DTC124ES	
Q504	8-729-900-36	TRANSISTOR DTC124ES	
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q601	8-729-140-93	TRANSISTOR 2SB733-34	(E, AUS/N500:EA, MX, MY, PX, SP, AR)

< RESISTOR >

Ref. No.	Part No.	Description	Remark
R101	1-247-807-31	CARBON 100 5% 1/4W	
R102	1-249-441-11	CARBON 100K 5% 1/4W	
R151	1-247-807-31	CARBON 100 5% 1/4W	
R152	1-249-441-11	CARBON 100K 5% 1/4W	
R301	1-249-417-11	CARBON 1K 5% 1/4W	
R302	1-249-438-11	CARBON 56K 5% 1/4W	
R303	1-249-413-11	CARBON 470 5% 1/4W	
R304	1-249-438-11	CARBON 56K 5% 1/4W	
R305	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R305	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R306	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R306	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R307	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R307	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R308	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R308	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠R309	1-212-881-11	FUSIBLE 100 5% 1/4W F	
⚠R310	1-217-156-00	WIREWOUND 0.22 10% 5W F	
R311	1-249-417-11	CARBON 1K 5% 1/4W	
R312	1-249-431-11	CARBON 15K 5% 1/4W	
R313	1-249-441-11	CARBON 100K 5% 1/4W	
R314	1-249-397-11	CARBON 22 5% 1/4W	
R315	1-249-397-11	CARBON 22 5% 1/4W	
R316	1-249-438-11	CARBON 56K 5% 1/4W	
R317	1-249-421-11	CARBON 2.2K 5% 1/4W	
R318	1-249-421-11	CARBON 2.2K 5% 1/4W	
⚠R319	1-249-383-11	CARBON 1.5 5% 1/6W F	
⚠R320	1-215-890-11	METAL OXIDE 470 5% 2W F	(AEP, UK, G, IT, EE, CIS)
⚠R320	1-215-891-11	METAL OXIDE 680 5% 2W F	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R321	1-260-074-11	CARBON 6.8 5% 1/2W	(AEP, UK, G, IT, EE, CIS)

The components identified by
mark ⚠ or dotted line with mark.
⚠ are critical for safety.
Replace only with part number
specified.

Ref. No.	Part No.	Description	Remark
R322	1-260-095-11	CARBON 470 5% 1/2W	
R324	1-260-076-11	CARBON 10 5% 1/2W	
R351	1-249-417-11	CARBON 1K 5% 1/4W	
R352	1-249-438-11	CARBON 56K 5% 1/4W	
R353	1-249-413-11	CARBON 470 5% 1/4W	
R354	1-249-438-11	CARBON 56K 5% 1/4W	
R355	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R355	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R356	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R356	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R357	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R357	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R358	1-249-425-11	CARBON 4.7K 5% 1/4W	(AEP, UK, G, IT, EE, CIS)
R358	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠R359	1-212-881-11	FUSIBLE 100 5% 1/4W	F
⚠R360	1-217-156-00	WIREWOUND 0.22 10% 5W	F
R361	1-249-417-11	CARBON 1K 5% 1/4W	
R362	1-249-431-11	CARBON 15K 5% 1/4W	
R363	1-249-441-11	CARBON 100K 5% 1/4W	
R364	1-249-397-11	CARBON 22 5% 1/4W	
R365	1-249-397-11	CARBON 22 5% 1/4W	
R366	1-249-437-11	CARBON 47K 5% 1/4W	
R367	1-249-421-11	CARBON 2.2K 5% 1/4W	
R368	1-249-421-11	CARBON 2.2K 5% 1/4W	
R371	1-260-074-11	CARBON 6.8 5% 1/2W	(AEP, UK, G, IT, EE, CIS)
R372	1-260-095-11	CARBON 470 5% 1/2W	
R374	1-260-076-11	CARBON 10 5% 1/2W	
R421	1-249-429-11	CARBON 10K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R471	1-249-429-11	CARBON 10K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R481	1-249-411-11	CARBON 330 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R482	1-249-417-11	CARBON 1K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R483	1-247-887-00	CARBON 220K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R501	1-249-429-11	CARBON 10K 5% 1/4W	
R502	1-249-441-11	CARBON 100K 5% 1/4W	
R503	1-249-437-11	CARBON 47K 5% 1/4W	
R504	1-249-430-11	CARBON 12K 5% 1/4W	
R505	1-249-441-11	CARBON 100K 5% 1/4W	
R506	1-249-411-11	CARBON 330 5% 1/4W	
R507	1-249-411-11	CARBON 330 5% 1/4W	
R508	1-249-439-11	CARBON 68K 5% 1/4W	
R509	1-249-441-11	CARBON 100K 5% 1/4W	
R510	1-249-429-11	CARBON 10K 5% 1/4W	
R511	1-249-437-11	CARBON 47K 5% 1/4W	
R512	1-249-417-11	CARBON 1K 5% 1/4W	
R513	1-249-437-11	CARBON 47K 5% 1/4W	
R514	1-249-429-11	CARBON 10K 5% 1/4W	
R515	1-247-881-00	CARBON 120K 5% 1/4W	
R601	1-247-807-31	CARBON 100 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R602	1-249-441-11	CARBON 100K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R603	1-249-417-11	CARBON 1K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R604	1-249-427-11	CARBON 6.8K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R605	1-249-439-11	CARBON 68K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R606	1-249-417-11	CARBON 1K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R607	1-249-417-11	CARBON 1K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R608	1-249-417-11	CARBON 1K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R609	1-249-417-11	CARBON 1K 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R610	1-249-396-11	CARBON 18 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R611	1-249-389-11	CARBON 4.7 5% 1/4W	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
R701	1-249-427-11	CARBON 6.8K 5% 1/4W	
R702	1-249-427-11	CARBON 6.8K 5% 1/4W	

< RELAY >

Ref. No.	Part No.	Description	Remark
RY301	1-515-920-11	RELAY (24V)	

< TRANSFORMER >

Ref. No.	Part No.	Description	Remark
⚠T1	1-427-773-11	TRANSFORMER, POWER	(AEP, UK, G, IT, EE, CIS)
⚠T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)
⚠T1	1-427-907-11	TRANSFORMER, POWER	(N500:MX)

The components identified by
mark ⚠ or dotted line with mark.
⚠ are critical for safety.
Replace only with part number
specified.

MAIN PANEL HEADPHONE TEMPERATURE SENSOR

VOLTAGE SELECTION

Ref. No.	Part No.	Description	Remark
		< TERMINAL >	
TM301	1-537-842-11	TERMINAL BOARD (SPEAKER) (AEP, UK, G, IT, EE, CIS)	
TM301	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SPEAKER) (E, AUS/N500:EA, MX, MY, PX, SP, AR)	
TM302	1-537-240-11	TERMINAL BOARD (CHECKER PIN) (SURROUND SPEAKER) (N500)	
**			
*	A-4377-331-A	PANEL BOARD, COMPLETE (N500:E, EA, MX, MY, PX, SP, AR, AUS)	
*	A-4377-273-A	PANEL BOARD, COMPLETE (N500:AEP, UK, G, IT, EE, CIS)	
*	A-4377-249-A	PANEL BOARD, COMPLETE (N600) **************************************	
		< CAPACITOR >	
C201	1-124-925-11	ELECT 2.2uF 20% 100V	
C203	1-124-443-00	ELECT 100uF 20% 10V	
C204	1-161-494-00	CERAMIC 0.022uF 25V	
C251	1-124-925-11	ELECT 2.2uF 20% 100V	
		< CONNECTOR >	
* CN201	1-568-830-11	SOCKET, CONNECTOR 11P (N600)	
* CN201	1-568-828-11	SOCKET, CONNECTOR 9P (N500)	
		< DIODE >	
D201	8-719-045-39	LED SML12460C-TP4 (SYSTEM POWER)	
D202	8-719-024-99	DIODE 11ES2-NTA2B	
D203	8-719-024-99	DIODE 11ES2-NTA2B	
D204	8-719-987-63	DIODE 1N4148M	
D205	8-719-987-63	DIODE 1N4148M	
		< IC >	
IC201	8-759-820-62	IC LB1639	
		< TRANSISTOR >	
Q201	8-729-900-36	TRANSISTOR DTC124ES	
Q202	8-729-422-57	TRANSISTOR UN4111	
Q205	8-729-422-57	TRANSISTOR UN4111	
		< RESISTOR >	
R201	1-249-421-11	CARBON 2.2K 5% 1/4W	
R202	1-249-421-11	CARBON 2.2K 5% 1/4W	
R203	1-249-417-11	CARBON 1K 5% 1/4W	
R211	1-249-413-11	CARBON 470 5% 1/4W	
R212	1-249-419-11	CARBON 1.5K 5% 1/4W	
R213	1-249-425-11	CARBON 4.7K 5% 1/4W	
R214	1-249-432-11	CARBON 18K 5% 1/4W	
R217	1-249-419-11	CARBON 1.5K 5% 1/4W	
R218	1-249-423-11	CARBON 3.3K 5% 1/4W	
R219	1-249-437-11	CARBON 47K 5% 1/4W	
R220	1-249-417-11	CARBON 1K 5% 1/4W	
		< VARIABLE RESISTOR >	
RV201	1-223-847-11	RES, VAR, CARBON 100K (BALANCE)	
RV202	1-223-845-11	RES, VAR, CARBON 10K/100KX2 (MASTER VOLUME) (N600)	
RV202	1-223-844-11	RES, VAR, CARBON 100KX2 (VOLUME) (N500)	
		< SWITCH >	
S201	1-554-303-21	SWITCH, TACTILE (DBFB)	
S202	1-554-303-21	SWITCH, TACTILE (SURROUND) (N500)	
S202	1-554-303-21	SWITCH, TACTILE (S-SURROUND) (N600)	
S203	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
S204	1-554-303-21	SWITCH, TACTILE (SLEEP)	
S205	1-554-303-21	SWITCH, TACTILE (FUNCTION)	
**			
*	1-654-890-11	HEADPHONE BOARD ***************	
		< CONNECTOR >	
CN303	1-770-593-41	CONNECTOR, BOARD TO BOARD 5P	
		< JACK >	
J301	1-580-903-11	JACK, LARGE TYPE (PHONES)	
**			
*	1-654-892-12	TEMPERATURE SENSOR BOARD (E, AUS/N500:EA, MX, MY, PX, SP, AR) **************************************	
		< CAPACITOR >	
C606	1-164-159-11	CERAMIC 0.1uF 50V	
		< IC >	
IC602	8-759-947-34	IC LM35DZ	
		< RESISTOR >	
R612	1-247-807-31	CARBON 100 5% 1/4W	
**			
*	1-654-891-11	VOLTAGE SELECTION BOARD (E/N500:EA, PX, SP, AR) **************************************	
		< CAPACITOR >	
CN3	1-568-106-11	PIN, CONNECTOR 4P	

Ref. No.	Part No.	Description	Remark
		< VOLTAGE SELECTOR >	
⚠VS1	1-762-298-11	SW, AC POWER VOLTAGE SELECTOR	(VOLTAGE SELECTOR)

****

MISCELLANEOUS
****

Ref. No.	Part No.	Description	Remark
7	1-590-218-11	WIRE, FLAT TYPE (11 CORE) (N600)	
* 7	1-590-240-11	WIRE, FLAT TYPE (9 CORE) (N500)	
7	1-590-240-31	WIRE, FLAT TYPE (9 CORE) (N500)	
⚠60	1-569-007-11	ADAPTER, CONVERSION 2P (N500:E3, PX)	
⚠60	1-569-008-11	ADAPTER, CONVERSION 2P (N500:EA, SP)	
⚠CNJ1	1-526-751-12	OUTLET, AC (N600:UK)	
⚠CNJ1	1-526-794-11	OUTLET, AC (N600:AEP, G, IT, EE, CIS)	
⚠CNJ1	1-526-882-00	OUTLET, AC (N600:E)	
⚠CNJ1	1-540-196-11	OUTLET, AC (N600:AUS)	
⚠CNP1	1-558-943-41	CORD, POWER (E/N500:MX, PX)	
⚠CNP1	1-575-651-21	CORD, POWER	(AEP, G, IT, EE, CIS/N500:EA, MY, SP, AR)
⚠CNP1	1-696-845-11	CORD, POWER (AUS)	
⚠CNP1	1-751-529-11	CORD, POWER (UK)	
⚠F1	1-532-286-00	FUSE (T2.5A 250V) (N600)	
⚠F701	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F701	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F702	1-532-299-00	FUSE (T5A 250V)	(E, AUS/N500:EA, MX, MY, PX, SP, AR)
⚠F702	1-532-350-00	FUSE (T4A 250V) (AEP, UK, G, IT, EE, CIS)	
⚠F703	1-532-286-00	FUSE (T2.5A 250V)	
⚠F704	1-532-286-00	FUSE (T2.5A 250V)	
⚠T1	1-427-773-11	TRANSFORMER, POWER (AEP, UK, G, IT, EE, CIS)	
⚠T1	1-427-774-11	TRANSFORMER, POWER	(E, AUS/N500:EA, MY, PX, SP, AR)
⚠T1	1-427-907-11	TRANSFORMER, POWER (N500:MX)	

****

****
HARDWARE LIST
****

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S
#4	7-682-560-04	SCREW +BVTT 4X6 (S)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

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Home A&V Products Div.

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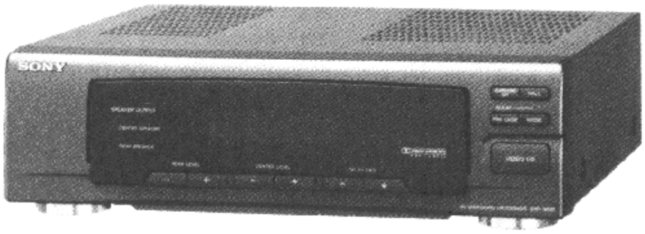
Quality Engineering Dept.

SDP-N600

SERVICE MANUAL

AEP Model
UK Model
E Model
Australian Model



SDP-N600 is the Surround processor section in LBT-N650AV.

SPECIFICATIONS

DIN power output
- CENTER 20 W (8 ohms, at 1 kHz)
- REAR 20 W + 20 W (8 ohms, at 1 kHz)

Continuous RMS power output
- CENTER 23 W (8 ohms, at 1 kHz, 5% THD)
- REAR 23 W + 23 W (8 ohms, at 1 kHz, 5% THD)

Music power output
- CENTER 28 W (8 ohms, at 1 kHz, 10% THD)
- REAR 28 W + 28 W (8 ohms, at 1 kHz, 10% THD)

Audio input	**Jack type**	**Sensitivity**	**Impedance**
VIDEO 1	Phono	435 (245) mV	47 kilohms
VIDEO 2	Phono	435 (245) mV	47 kilohms

( ) : E, Australian model

Audio output	**Jack type**	**Voltage**	**Impedance**
VIDEO 1	Phono	235 (245) mV	2 kilohms
VIDEO 2	Phono	235 (245) mV	2 kilohms
CENTER OUT	Phono		1 kilohms

( ) : E, Australian model

Video input (phono jacks)
- VIDEO 1, VIDEO 2
  1 Vp-p, 75 ohm unbalanced, sync negative

Video output (phono jacks)
- VIDEO 1
  1 Vp-p, 75 ohm unbalanced, sync negative
- VIDEO 2
  1 Vp-p, 75 ohm unbalanced, sync negative
- MONITOR
  1 Vp-p, 75 ohm unbalanced, sync negative

Power requirements
- AEP, UK, East European, CIS model :
  220-230 V AC, 50/60 Hz
- Australian model:
  220-240 V AC, 50/60 Hz
- Other model:
  110-120 V or 220 V-240 V AC adjustable, 50/60 Hz

Power consumption 63 W

Mass Approx. 4.6 kg

Dimensions
Approx. 355 x 105 x 320 mm
(w/h/d, including projections)

— Continued on next page —

MICROFILM

SURROUND PROCESSOR

SONY®

SERVICE NOTE

How to confirm the operation with a single unit

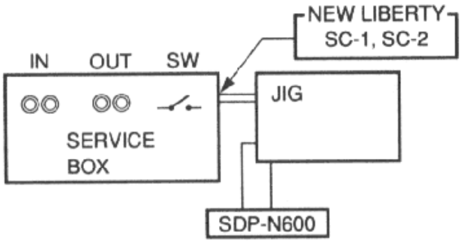
- Normally, this set does not operate with a single unit.
  The exclusive jig (J-2501-081-A) is necessary to operate the set with a single unit.
  The cable attached to set is used for connecting with the jig.

How to turn the power on

- If the power switch of the service box is set to ON, the power supply of the set is turned on. The sound signal is input/output through CN102 (SYSTEM CONTROL 4). In case of using the input/output terminal of SERVICE BOX, press [VIDEO 1/2] key and [SURROUND OFF] key for more than three seconds at once.
- When using the input/output terminals of VIDEO 1 and VIDEO 2 on the unit, press [VIDEO 1/2] key to switch.

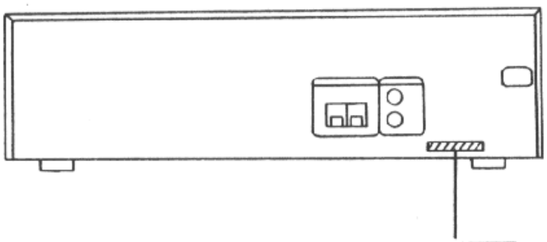
All light up of FL tube

When [REAR LEVEL +] key and [HALL] key are pressed for more than three seconds then press a key, all FL tubes are lit.
After that the display will be changed as KEY 0 to KEY 11 at every pressing keys (eleven times). (The display will not be changed by pressing the same key.) Press a key again to release.



MODEL IDENTIFICATION

— BACK PANEL —



	Parts No.
AEP Model	4-971-125-0□
UK Model	4-971-125-1□
EE, CIS Model	4-971-125-2□
E Model	4-971-125-3□
AUS Model	4-971-125-4□

- Abbreviation
  EE : East European model.
  AUS : Australian model.

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SECTION 2. DIAGRAMS
2-1. Circuit Boards Location 4
2-2. Block Diagram 5
2-3. Printed Wiring Board — Main Section — 8
2-4. Schematic Diagram — Main Section — 11
2-5. IC Block Diagrams — Main Section — 15
2-6. Printed Wiring Board — IN/OUT Section — 17
2-7. Schematic Diagram — IN/OUT Section — 19
2-8. Printed Wiring Board — Panel Section — 22
2-9. Schematic Diagram — Panel Section — 25
2-10. IC Pin Function
• IC601 TMP87C814N Display Control 28

SECTION 3. EXPLODED VIEWS
3-1. Case Section 29
3-2. Main Board Section 30

SECTION 4. ELECTRICAL PARTS LIST 31

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor ofthe circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY-RELATED COMPONENT WARNING !!

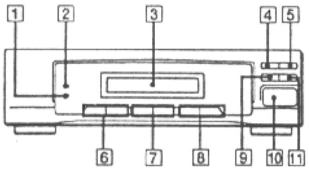
COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1

GENERAL

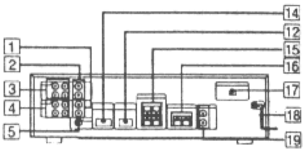
This section is extracted from Instruction manual.

Front Panel



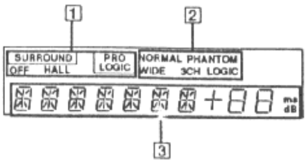
1 REAR SPEAKER indication (22)
2 CENTER SPEAKER indication (22)
3 Display window
4 SURROUND OFF button (22)
5 HALL button (22)
6 REAR LEVEL (+/–) buttons (22)
7 CENTER LEVEL (+/–) buttons (22)
8 DELAY TIME (+/–) buttons (22)
9 DOLBY PRO-LOGIC button (22)
10 VIDEO 1/2 button (21, 25)
11 DOLBY MODE button (22)

Rear Panel



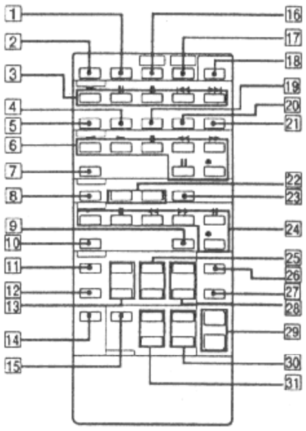
1 VIDEO 2 VIDEO IN/OUT jacks (21)
2 VIDEO 1 VIDEO IN/OUT jacks (21)
3 VIDEO 1 AUDIO IN/OUT jacks (21)
4 VIDEO 2 AUDIO IN/OUT jacks (21)
5 MONITOR VIDEO OUT (21)
12 SYSTEM CONTROL 4 terminals (5)
14 SYSTEM CONTROL 3 terminals (5)
15 REAR SPEAKER connectors (4)
16 CENTER SPEAKER connectors (4)
17 VOLTAGE SELECTOR (except for E model) (5)
18 AC power cord (6)
19 CENTER OUT jacks (21)

Display Window



1 Surround mode (SURROUND/OFF/HALL/PRO LOGIC) indications (22)
2 Dolby Pro-Logic mode (NORMAL/PHANTOM/WIDE/3CH LOGIC) indications (22)
3 Function indications (21)

Remote (RM-S600L)



1 SLEEP button (23)
2 FUNCTION button (14, 17, 21, 25)
3 CD operating buttons (7, 8)
► (play)
⏮/⏭ (AMS*)
❚❚ (pause)
■ (stop)
*AMS: Automatic Music Sensor
4 CLEAR button (8)
5 CHECK button (8, 15)
6 TAPE operating buttons (12)
◄/► (reverse side play/front side play)
◄◄/►► (fast leftward/fast rightward)
■ (stop)
❚❚ (pause)
● REC
7 DECK SELECT A/B selector (12)
8 TUNER BAND button (10, 24)
9 ANT TV/VTR button*
10 VTR 2/3 selector (21)
11 TEST TONE button (22)
12 SURROUND MODE button (22)
13 REAR LEVEL buttons (22)
14 VIDEO 1/2 button (21, 25)
15 TV/VIDEO button*
16 VTR POWER button**
17 TV POWER button*
18 SYSTEM POWER button (7, 10, 12)
19 EDIT button (14, 15)
20 REPEAT button (9)
21 DISC SKIP button (7)
22 PRESET (+/–) buttons (11)
23 STEREO/MONO button (10)
24 VTR operating buttons**
► (play)
◄◄/►► (fast leftward/fast rightward)
■ (stop)
❚❚ (pause)
● REC
25 CENTER LEVEL buttons (22)
26 SELECT 1-5 button (18, 19)
27 P.FILE 1-5 button (18, 19)
28 DELAY TIME buttons (22)
29 MASTER VOL (Volume) buttons (7, 18, 22)

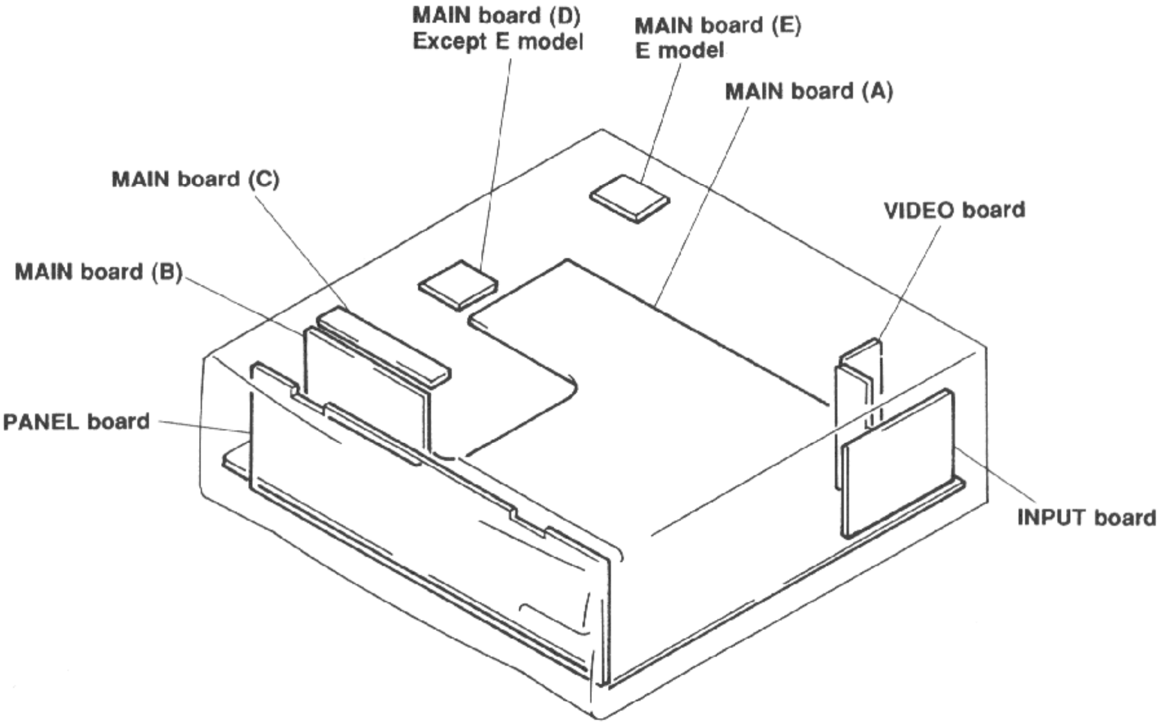
30 CHANNEL buttons*
31 VOLUME buttons*

* For use with Sony TVs
** For use with Sony VCRs

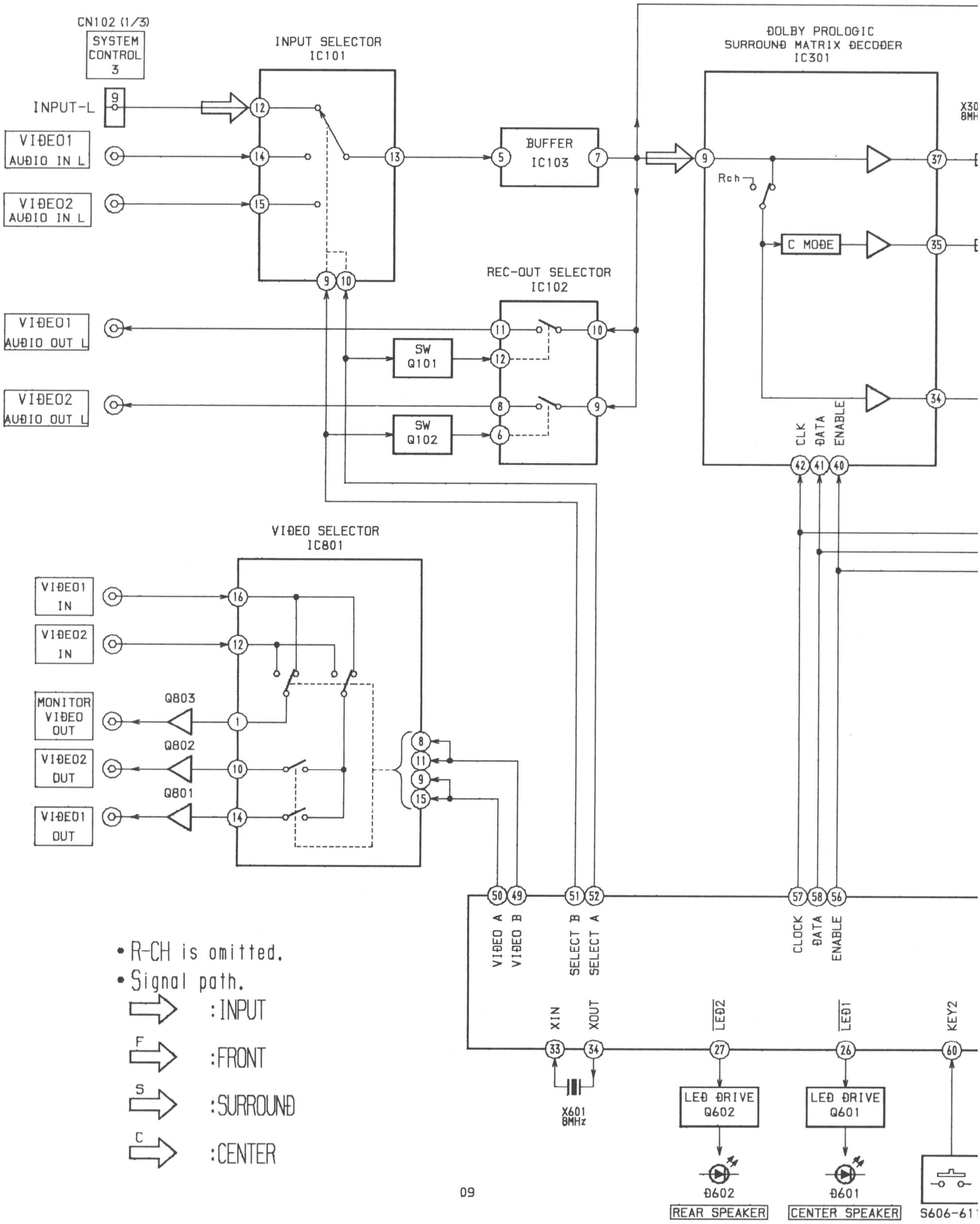
SECTION 2

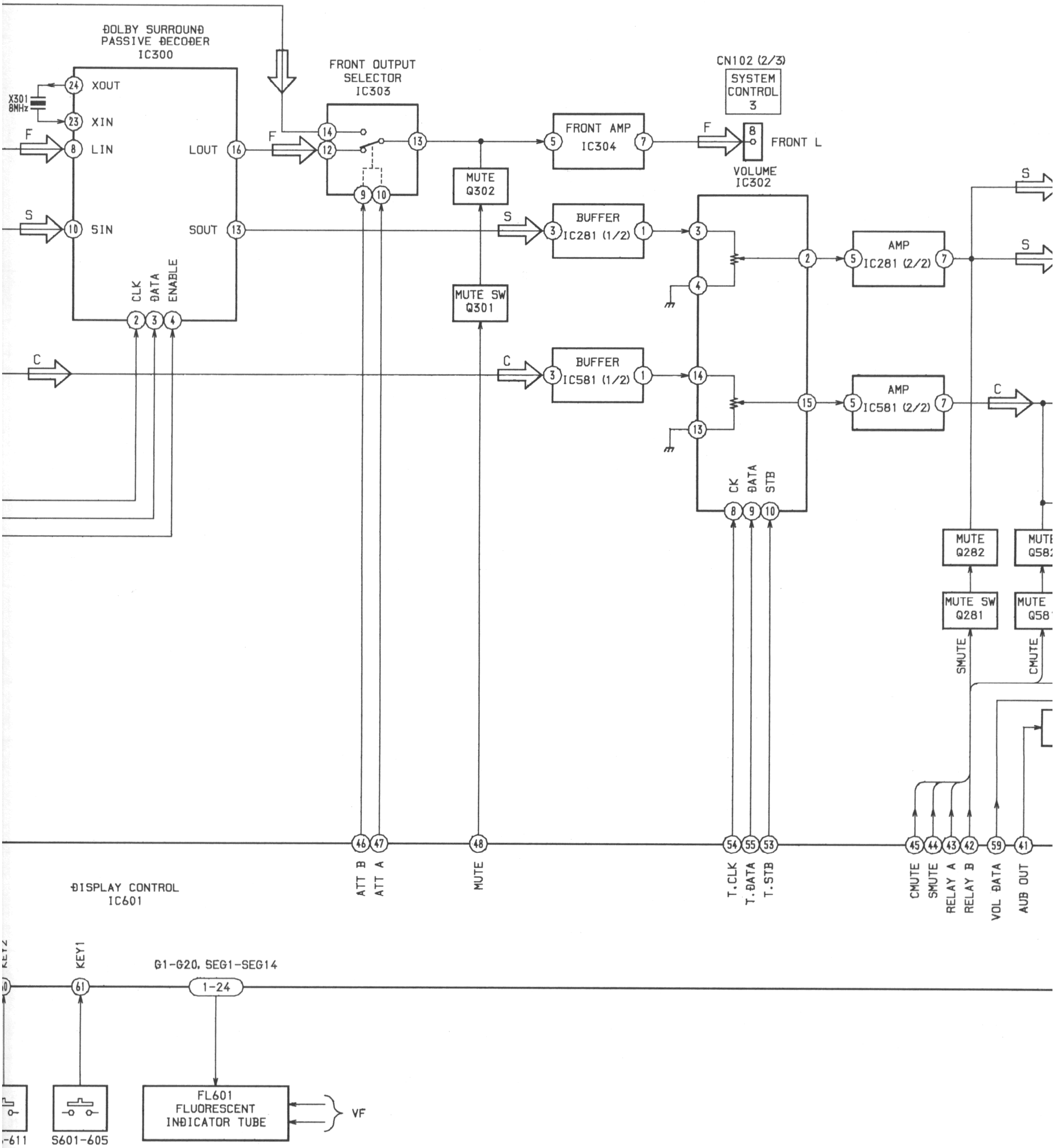
DIAGRAMS

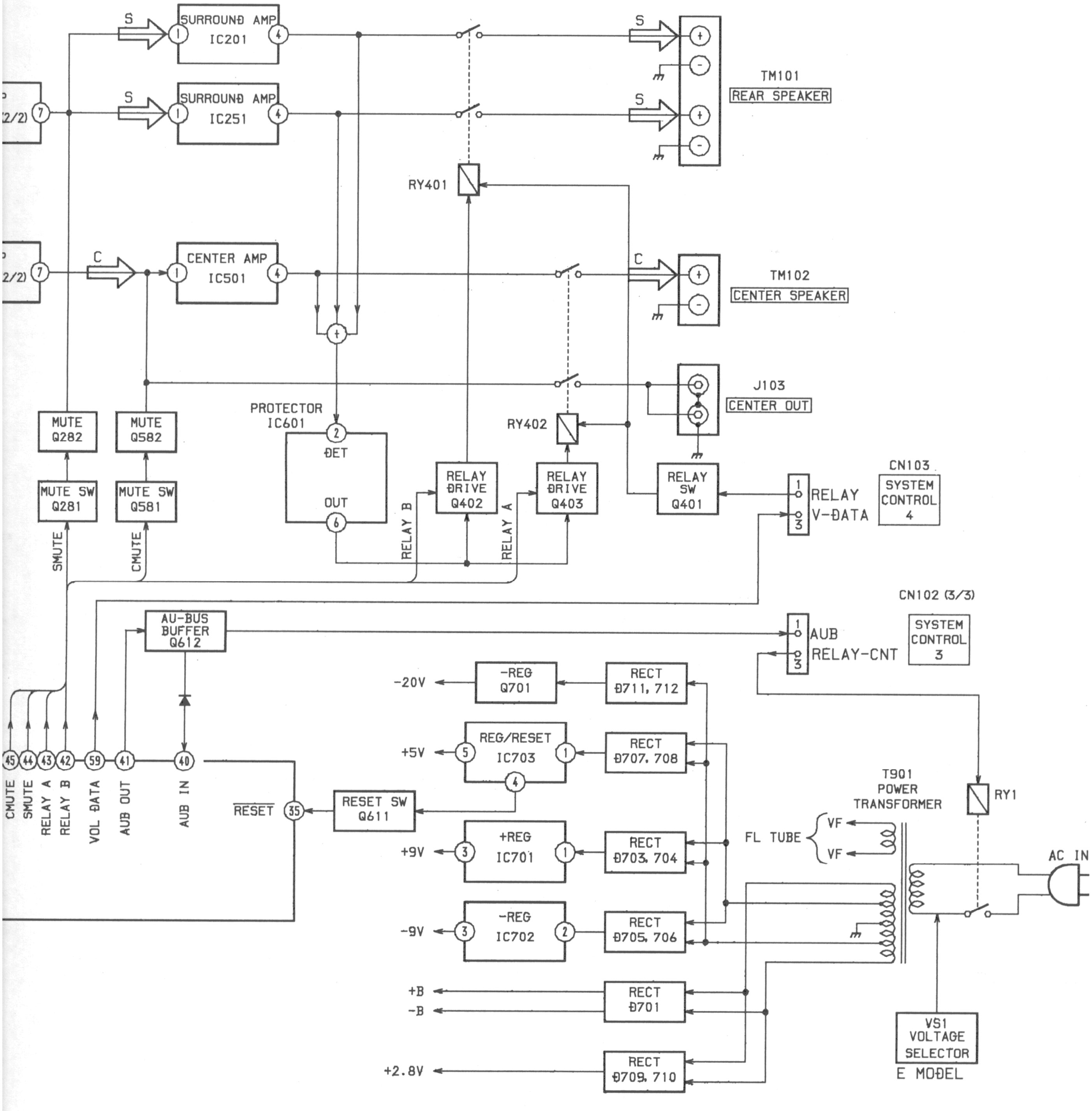
2-1. CIRCUIT BOARDS LOCATION


MAIN board (D)
Except E model
MAIN board (E)
E model
MAIN board (A)
MAIN board (C)
VIDEO board
MAIN board (B)
PANEL board
INPUT board

2-2. BLOCK DIAGRAM


CN102 (1/3)
SYSTEM CONTROL 3
INPUT-L
9
VIDEO1 AUDIO IN L
VIDEO2 AUDIO IN L
INPUT SELECTOR
IC101
12
14
15
13
9
10
BUFFER
IC103
5
7
REC-OUT SELECTOR
IC102
11
10
12
8
9
6
SW
Q101
SW
Q102
VIDEO1 AUDIO OUT L
VIDEO2 AUDIO OUT L
DOLBY PROLOGIC
SURROUND MATRIX DECODER
IC301
Rch
C MODE
37
35
34
CLK
DATA
ENABLE
42
41
40
VIDEO SELECTOR
IC801
VIDEO1 IN
VIDEO2 IN
MONITOR VIDEO OUT
VIDEO2 OUT
VIDEO1 OUT
Q803
Q802
Q801
16
12
1
10
14
8
11
9
15
50
49
51
52
57
58
56
VIDEO A
VIDEO B
SELECT B
SELECT A
CLOCK
DATA
ENABLE
XIN
XOUT
LED2
LED1
KEY2
33
34
27
26
60
X601
8MHz
LED DRIVE
Q602
LED DRIVE
Q601
D602
REAR SPEAKER
D601
CENTER SPEAKER
S606-61
09
• R-CH is omitted.
• Signal path.
:INPUT
F
:FRONT
S
:SURROUND
C
:CENTER


DOLBY SURROUND
PASSIVE DECODER
IC300
X301
8MHz
24 XOUT
23 XIN
F
8 LIN
S
10 SIN
LOUT 16
SOUT 13
CLK
DATA
ENABLE
2 3 4
C
FRONT OUTPUT
SELECTOR
IC303
14
12
13
9 10
MUTE
Q302
MUTE SW
Q301
FRONT AMP
IC304
5 7
CN102 (2/3)
SYSTEM
CONTROL
3
8
FRONT L
VOLUME
IC302
BUFFER
IC281 (1/2)
BUFFER
IC581 (1/2)
3 1
3 4 2
14 13 15
CK
DATA
STB
8 9 10
AMP
IC281 (2/2)
AMP
IC581 (2/2)
5 7
MUTE
Q282
MUTE SW
Q281
MUTE
Q582
MUTE
Q581
SMUTE
CMUTE
46 47 48
ATT B
ATT A
MUTE
54 55 53
T.CLK
T.DATA
T.STB
45 44 43 42 59 41
CMUTE
SMUTE
RELAY A
RELAY B
VOL DATA
AUB OUT
DISPLAY CONTROL
IC601
KEY2
KEY1
60
61
G1-G20, SEG1-SEG14
1-24
FL601
FLUORESCENT
INDICATOR TUBE
VF
S601-605
-611


S
SURROUND AMP
IC201
S
SURROUND AMP
IC251
(2/2)
S
S
TM101
REAR SPEAKER
RY401
C
CENTER AMP
IC501
(2/2)
C
TM102
CENTER SPEAKER
J103
CENTER OUT
MUTE
Q282
MUTE
Q582
PROTECTOR
IC601
DET
OUT
RY402
MUTE SW
Q281
MUTE SW
Q581
RELAY
DRIVE
Q402
RELAY
DRIVE
Q403
RELAY
SW
Q401
RELAY B
RELAY A
SMUTE
CMUTE
RELAY
V-DATA
CN103
SYSTEM
CONTROL
4
CN102 (3/3)
SYSTEM
CONTROL
3
AU-BUS
BUFFER
Q612
AUB
RELAY-CNT
-20V
-REG
Q701
RECT
D711, 712
+5V
REG/RESET
IC703
RECT
D707, 708
CMUTE
SMUTE
RELAY A
RELAY B
VOL DATA
AUB OUT
AUB IN
RESET
RESET SW
Q611
T901
POWER
TRANSFORMER
RY1
+9V
+REG
IC701
RECT
D703, 704
FL TUBE
VF
VF
AC IN
-9V
-REG
IC702
RECT
D705, 706
+B
-B
RECT
D701
VS1
VOLTAGE
SELECTOR
E MODEL
+2.8V
RECT
D709, 710

2-3. PRINTED WIRING BOARD — MAIN SECTION —

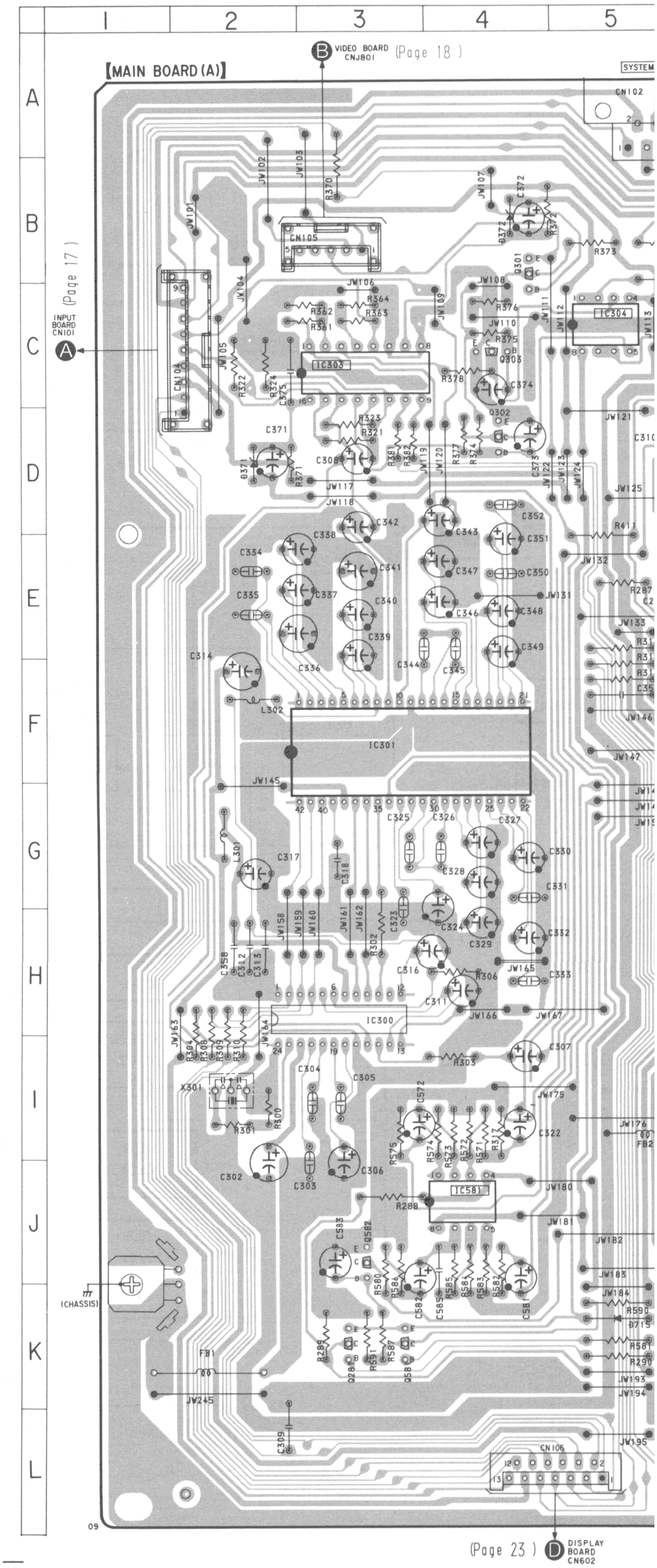
• See page 4 for Circuit Boards Location.

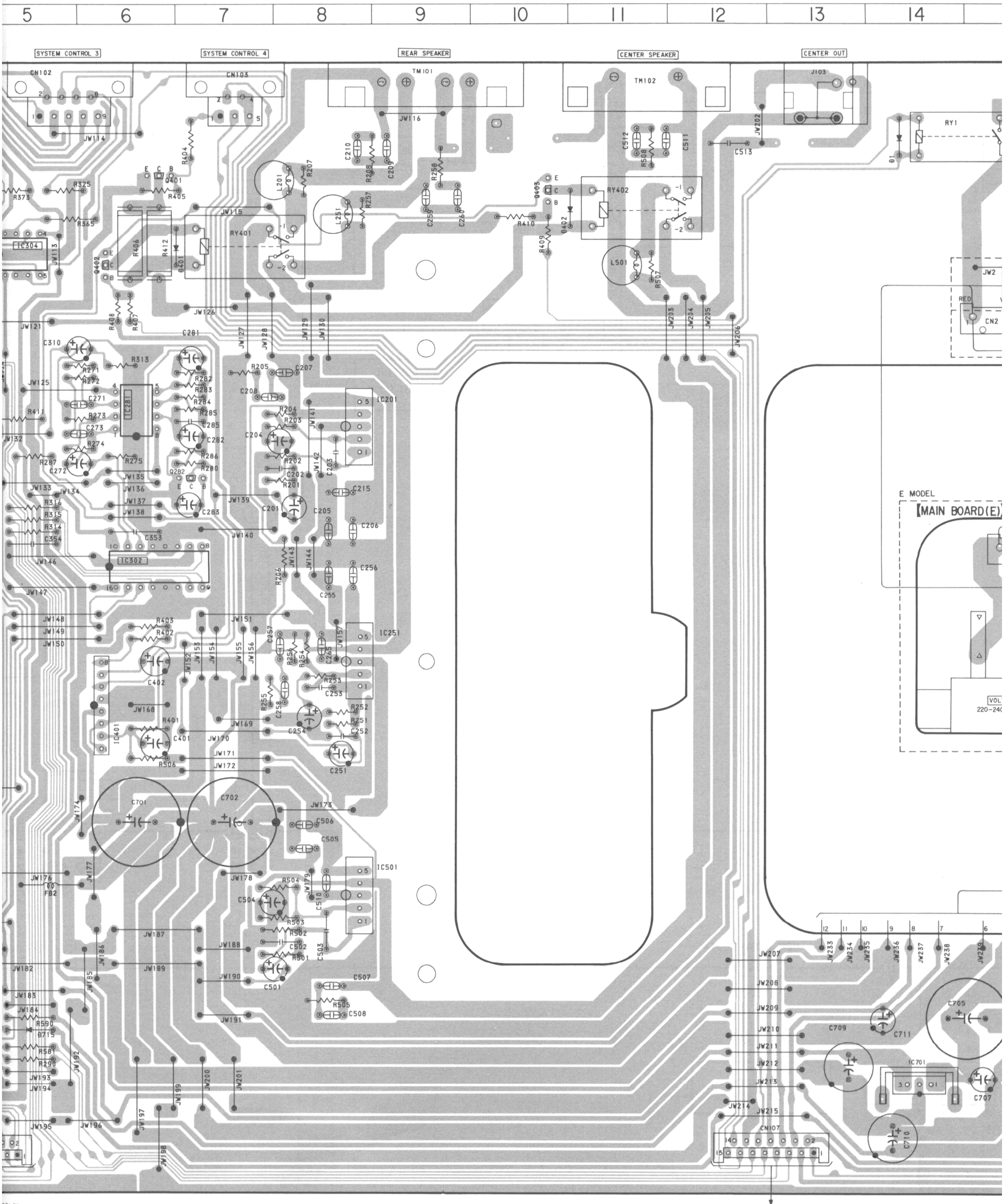
• Semiconductor Location

Ref. No.	Location
D1	B-14
D371	D-2
D372	B-4
D401	C-6
D402	B-10
D701	J-19
D703	J-20
D704	J-21
D705	J-20
D706	J-21
D707	K-22
D708	K-22
D709	K-19
D710	K-19
D711	I-22
D712	I-22
D713	J-22
D714	K-18
D715	K-5
IC201	E-8
IC251	G-8
IC281	E-6
IC300	H-3
IC301	F-3
IC302	F-6
IC303	C-3
IC304	C-5
IC401	H-6
IC501	J-8
IC581	J-4
IC701	K-14
IC702	K-15
IC703	K-16
Q281	K-3
Q282	E-7
Q301	C-4
Q302	D-4
Q303	C-4
Q401	B-6
Q402	C-6
Q403	B-10
Q581	K-3
Q582	J-3
Q701	J-22

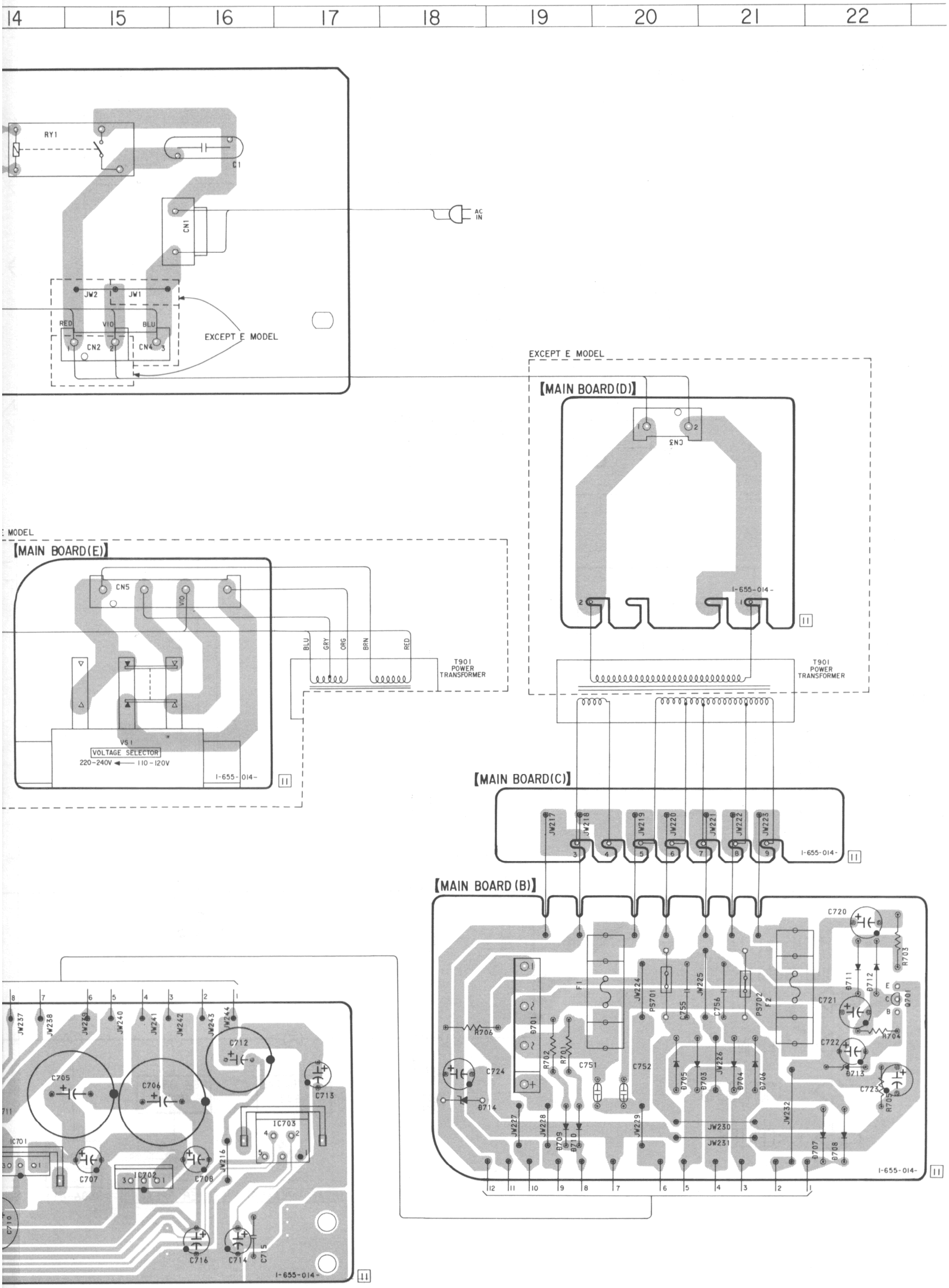
Note:

- o—— : parts extracted from the component side.
- △ : internal component.
- ▨ : Pattern from the side which enable seeing.


1
2
3
4
5
A
B
C
D
E
F
G
H
I
J
K
L
[MAIN BOARD (A)]
Ⓑ VIDEO BOARD CNJ801 (Page 18)
SYSTEM
CN102
(Page 17)
INPUT BOARD CN101
Ⓐ
CN104
CN105
IC303
IC304
IC301
IC300
IC581
X301
L301
L302
FB1
FB2
JW245
C309
CN106
(CHASSIS)
09
(Page 23) Ⓓ DISPLAY BOARD CN602

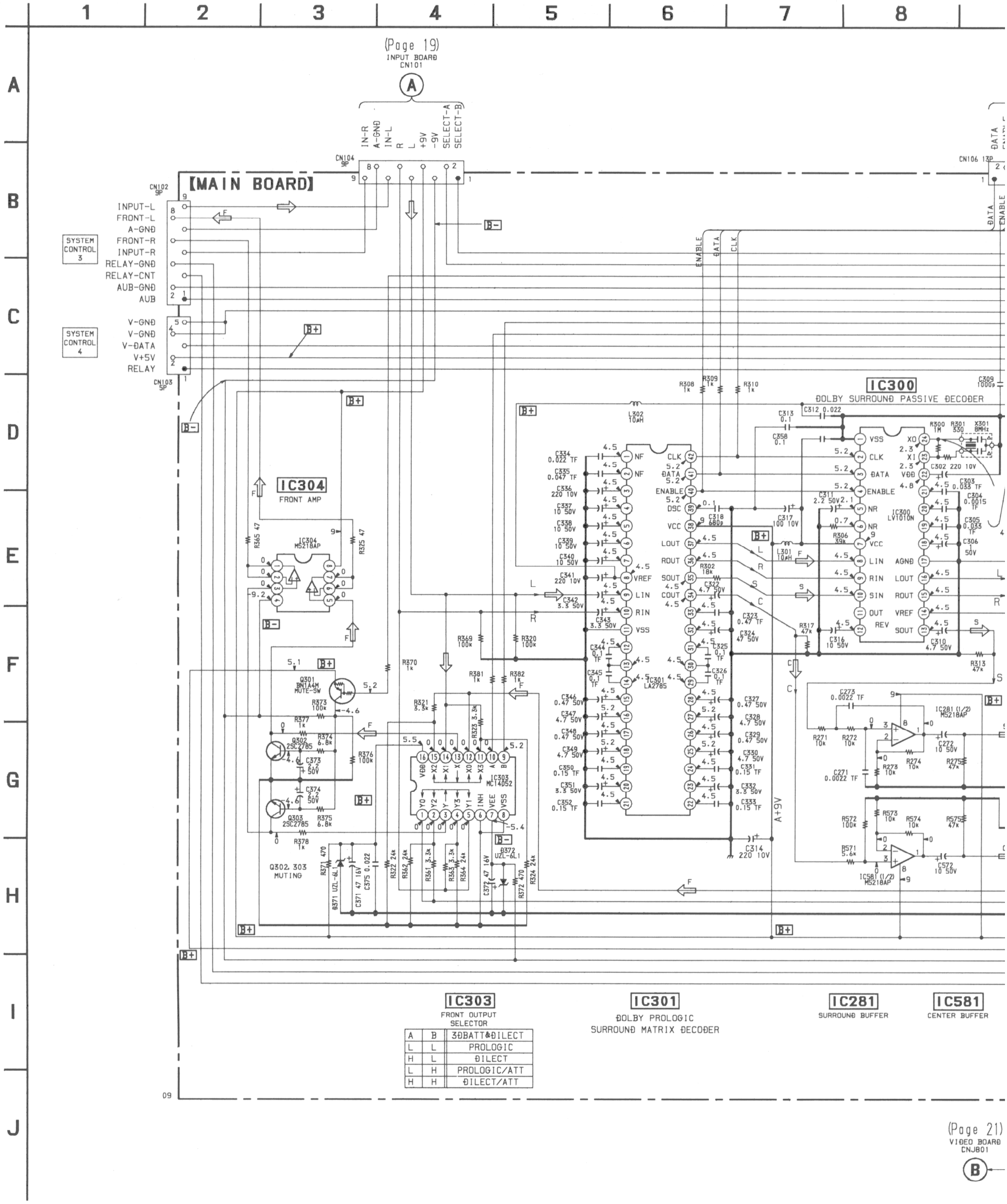

5
6
7
8
9
10
11
12
13
14
SYSTEM CONTROL 3
SYSTEM CONTROL 4
REAR SPEAKER
CENTER SPEAKER
CENTER OUT
CN102
CN103
TM101
TM102
J103
RY1
RY401
RY402
IC304
IC281
IC302
IC201
IC251
IC401
IC501
IC701
C701
C702
C705
L201
L251
L501
E MODEL
[MAIN BOARD(E)]
RED
CN2
JW2
220-240
CN107
SPLAY
ARD
602

(Page 24) C DISPLAY BOARD CN601

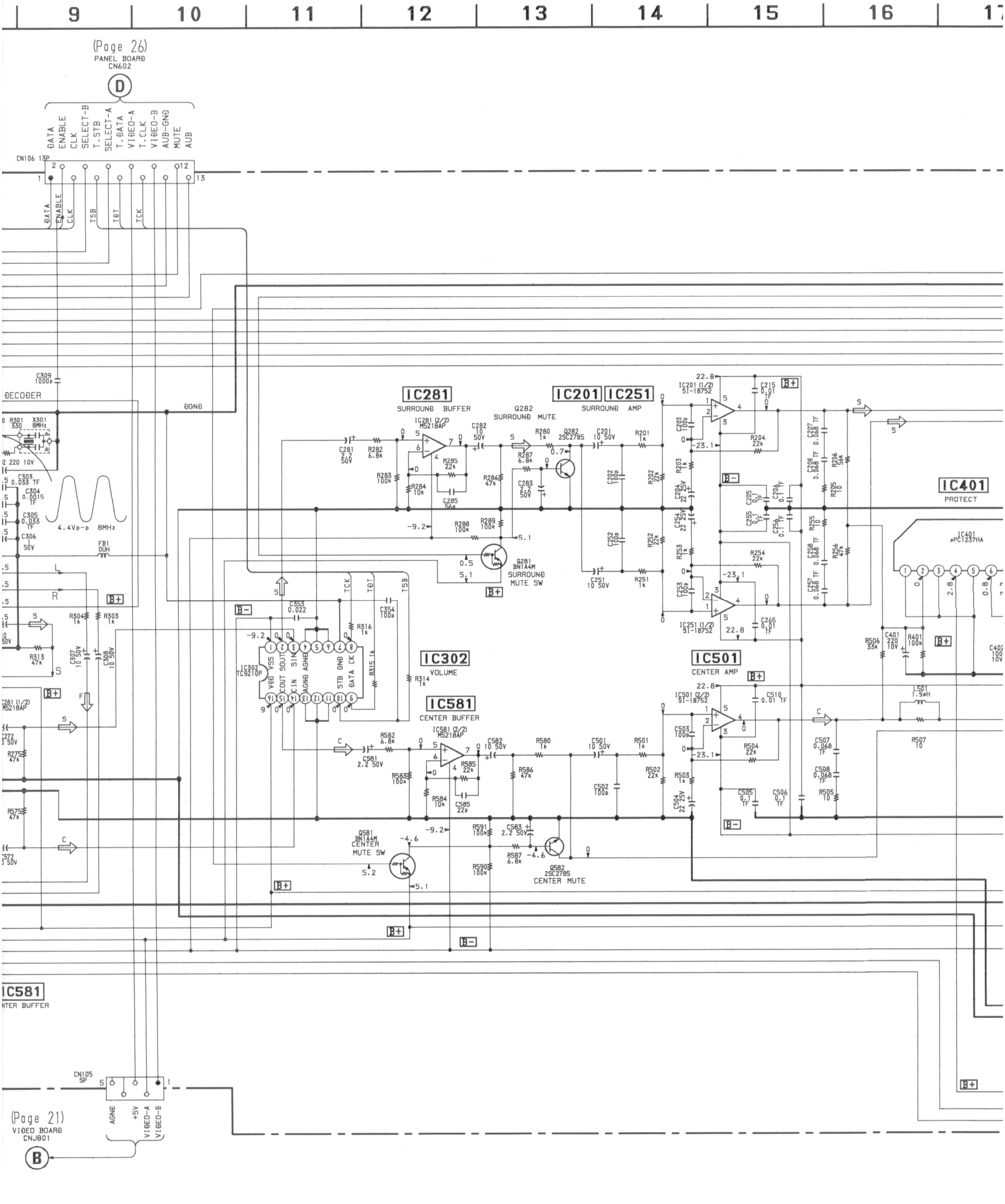

14
15
16
17
18
19
20
21
22
RY1
C1
CN1
AC IN
JW2
JW1
RED
VIO
BLU
CN2
CN4
EXCEPT E MODEL
EXCEPT E MODEL
【MAIN BOARD(D)】
CN3
1-655-014-
11
T901 POWER TRANSFORMER
E MODEL
【MAIN BOARD(E)】
CN5
VIO
BLU
GRY
ORG
BRN
RED
T901 POWER TRANSFORMER
VS1
VOLTAGE SELECTOR
220-240V ← 110-120V
1-655-014-
11
【MAIN BOARD(C)】
JW217
JW218
JW219
JW220
JW221
JW222
JW223
1-655-014-
11
【MAIN BOARD(B)】
C720
R703
D711
D712
E
C
B
D701
C721
R704
C722
D713
C723
R705
F1
JW224
PS701
C755
JW225
C756
PS702
F2
R706
D701
R702
R701
C751
C752
C724
D714
D705
D703
JW226
D704
D706
JW227
JW228
D709
D710
JW229
JW230
JW231
JW232
D707
D708
1-655-014-
11
12
11
10
9
8
7
6
5
4
3
2
1
JW237
JW238
JW239
JW240
JW241
JW242
JW243
JW244
C712
C705
C706
C713
IC703
IC701
C707
IC702
C708
JW216
C710
C716
C714
C715
1-655-014-
11

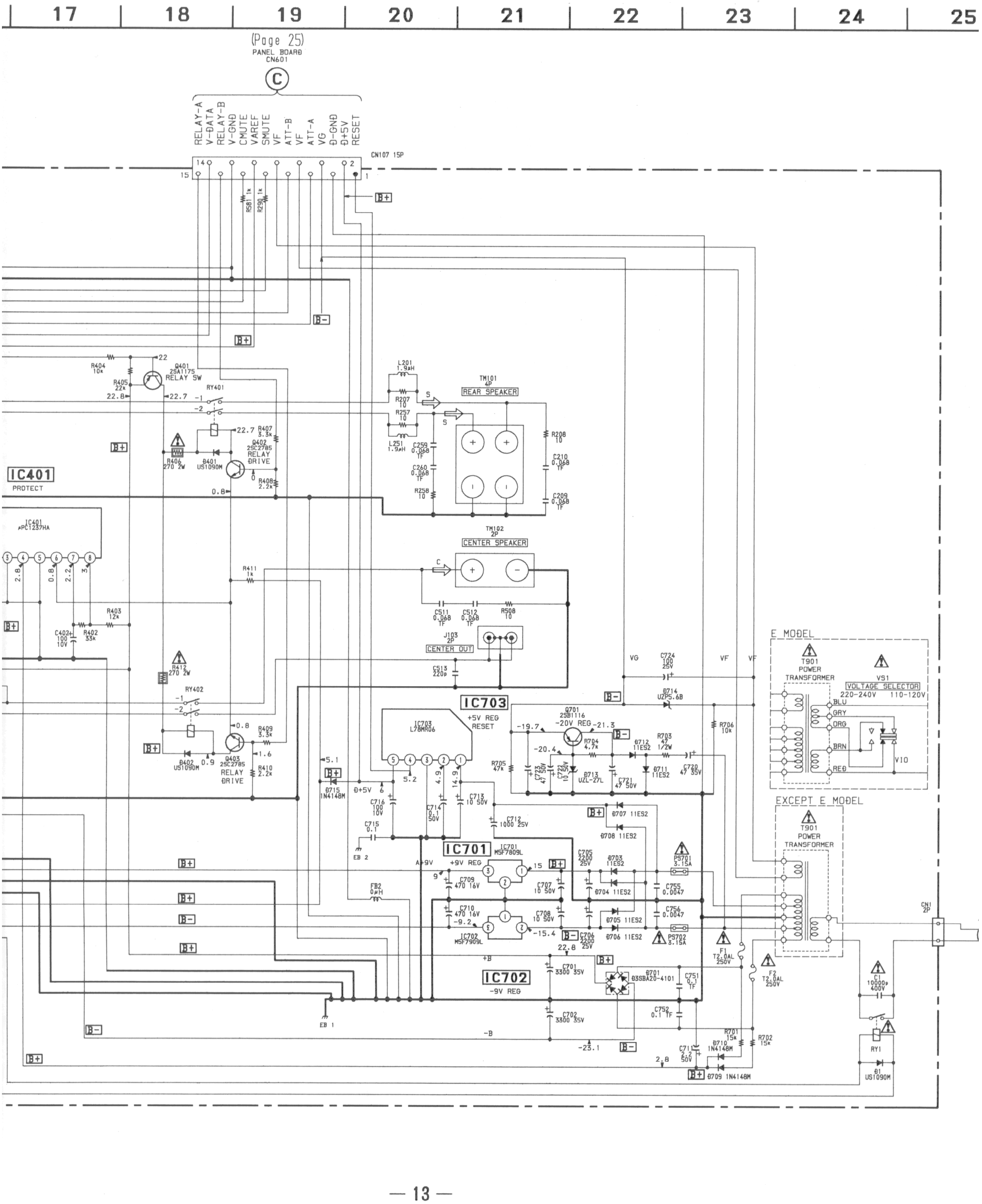
2-4. SCHEMATIC DIAGRAM — MAIN SECTION —

• See page 15 for IC Block Diagrams.

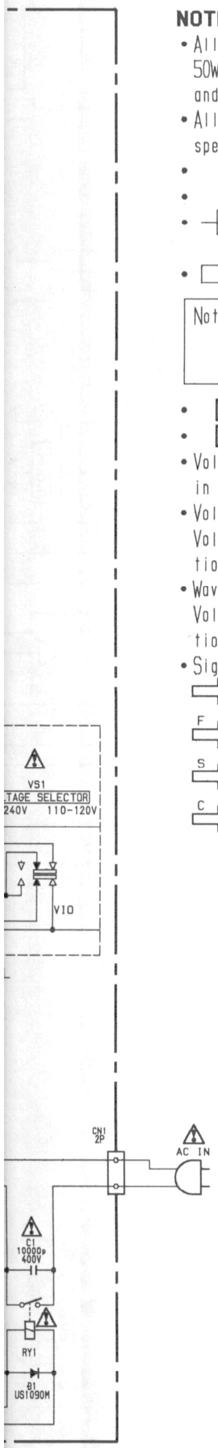

1
2
3
4
5
6
7
8
A
B
C
D
E
F
G
H
I
J
(Page 19)
INPUT BOARD
CN101
A
IN-R
A-GND
IN-L
R
L
+9V
-9V
SELECT-A
SELECT-B
CN104 9P
[MAIN BOARD]
CN102 9P
INPUT-L
FRONT-L
A-GND
FRONT-R
INPUT-R
RELAY-GND
RELAY-CNT
AUB-GND
AUB
SYSTEM CONTROL 3
SYSTEM CONTROL 4
V-GND
V-GND
V-DATA
V+5V
RELAY
CN103 5P
CN106 13P
DATA
ENABLE
CLK
B+
B-
IC304
FRONT AMP
IC304 M5218AP
R365 47
R325 47
Q301 BN1A4M MUTE-SW
Q302 2SC2785
Q303 2SC2785
Q302, 303 MUTING
R373 100k
R377 1k
R374 6.8k
R375 6.8k
R376 100k
R378 1k
C373 2.2 50V
C374 2.2 50V
D371 UZL-6L1
R371 470
C371 47 16V
C375 0.022
R370 1k
R369 100k
R320 100k
R381 1k
R382 1k
R321 3.3k
R323 3.3k
R322 24k
R362 24k
R361 3.3k
R363 3.3k
R364 24k
R324 24k
R372 470
C372 47 16V
D372 UZL-6L1
IC303 MC14052
VDD
X2
X1
X0
X3
X
A
B
Y0
Y2
Y
Y3
Y1
INH
VEE
VSS
L302 10μH
IC301 LA2785
NF
CLK
DATA
ENABLE
OSC
VCC
LOUT
ROUT
VREF
SOUT
LIN
COUT
RIN
VSS
C334 0.022 TF
C335 0.047 TF
C336 220 10V
C337 10 50V
C338 10 50V
C339 10 50V
C340 10 50V
C341 220 10V
C342 3.3 50V
C343 3.3 50V
C344 0.1 TF
C345 0.1 TF
C346 0.47 50V
C347 4.7 50V
C348 0.47 50V
C349 4.7 50V
C350 0.15 TF
C351 3.3 50V
C352 0.15 TF
C318 680p
R302 18k
C322 4.7 50V
C323 0.47 TF
C324 47 50V
C325 0.1 TF
C326 0.1 TF
C327 0.47 50V
C328 4.7 50V
C329 0.47 50V
C330 4.7 50V
C331 0.15 TF
C332 3.3 50V
C333 0.15 TF
C314 220 10V
A+9V
R308 1k
R309 1k
R310 1k
IC300
DOLBY SURROUND PASSIVE DECODER
IC300 LV1010N
C309 1000p
C312 0.022
C313 0.1
C358 0.1
R300 1M
R301 330
X301 8MHz
C302 220 10V
C303 0.033 TF
C304 0.0015 TF
C305 0.033 TF
C306 1 50V
C311 2.2 50V
C317 100 10V
L301 10μH
R306 39k
R317 47k
C316 10 50V
C310 4.7 50V
R313 47k
VSS
XO
XI
DATA
VDD
ENABLE
NR
VCC
LIN
AGND
RIN
LOUT
SIN
ROUT
OUT
VREF
REV
SOUT
L
R
S
C
F
C273 0.0022 TF
C271 0.0022 TF
R271 10k
R272 10k
R273 10k
R274 10k
R275 47k
C272 10 50V
IC281 (1/2) M5218AP
R571 5.6k
R572 100k
R573 10k
R574 10k
R575 47k
C572 10 50V
IC581 (1/2) M5218AP
IC303
FRONT OUTPUT SELECTOR
IC301
DOLBY PROLOGIC SURROUND MATRIX DECODER
IC281
SURROUND BUFFER
IC581
CENTER BUFFER
09
(Page 21)
VIDEO BOARD
CNJ801
B

A	B	3DBATT&DILECT
L	L	PROLOGIC
H	L	DILECT
L	H	PROLOGIC/ATT
H	H	DILECT/ATT


9
10
11
12
13
14
15
16
17
(Page 26)
PANEL BOARD
CN602
D
DATA
ENABLE
CLK
SELECT-B
T.STB
SELECT-A
T.DATA
VIDEO-A
T.CLK
VIDEO-B
AUD-GND
MUTE
AUD
CN106 13P
TSB
TDT
TCK
C309 1000p
DECODER
DGND
R301 330
X301 8MHz
C303 0.033 TF
C304 0.0015
C305 0.033 TF
C306 1 50V
4.4Vp-p 8MHz
FB1 0UH
R304 1k
R303 1k
R313 47k
C307 10 50V
C308 10 50V
IC281
SURROUND BUFFER
IC281 (2/2) M5218AP
C281 2.2 50V
R282 6.8k
R283 100k
R284 10k
R285 22k
C285 56p
C282 10 50V
R286 47k
R288 100k
R289 100k
Q282
SURROUND MUTE
R280 1k
R287 6.8k
Q282 2SC2785
C283 2.2 50V
Q281 BN1A4M
SURROUND MUTE SW
IC201
IC251
SURROUND AMP
C201 10 50V
R201 1k
C202 100p
R202 22k
C251 10 50V
C252 100p
R252 22k
R251 1k
IC201 (1/2) SI-18752
C215 0.01 TF
C203 100p
R203 1k
R204 22k
C204 22 25V
C205 0.1 TF
C206 0.1 TF
C254 22 25V
C255 0.1 TF
C256 0.1 TF
R253 1k
R254 22k
C253 100p
C265 0.01 TF
IC251 (1/2) SI-18752
C207 0.068 TF
C208 0.068 TF
R206 56k
R205 10
R255 10
C258 0.068 TF
C257 0.068 TF
R256 47k
22.8
-23.1
IC401
PROTECT
IC401 μPC1237HA
R506 33k
C401 220 10V
R401 100k
C402 100 10V
IC302
VOLUME
IC302 TC9210P
C353 0.022
C354 100p
R316 1k
R315 1k
R314 1k
VDD
VSS
COUT
SOUT
CIN
SIN
AGND
STB
GND
DATA
CK
IC281 (1/2) M5218AP
C272 10 50V
R275 47k
R575 47k
C572 10 50V
IC501
CENTER AMP
IC501 (2/2) SI-18752
C510 0.01 TF
C503 100p
R503 1k
R504 22k
C504 22 25V
C505 0.1 TF
C506 0.1 TF
L501 1.9μH
R507 10
C507 0.068 TF
C508 0.068 TF
R505 10
IC581
CENTER BUFFER
IC581 (2/2) M5218AP
R582 6.8k
C581 2.2 50V
R583 100k
R584 10k
R585 22k
C585 22p
C582 10 50V
R580 1k
R586 47k
C501 10 50V
C502 100p
R501 1k
R502 22k
R591 100k
C583 2.2 50V
R587 6.8k
R590 100k
Q582 2SC2785
CENTER MUTE
Q581 BN1A4M
CENTER MUTE SW
IC581
CENTER BUFFER
CN105 5P
AGND
+5V
VIDEO-A
VIDEO-B
(Page 21)
VIDEO BOARD
CNJ801
B
B+
B-
S
C
F
L
R


17
18
19
20
21
22
23
24
25
(Page 25)
PANEL BOARD
CN601
C
RELAY-A
V-DATA
RELAY-B
V-GND
CMUTE
VAREF
SMUTE
VF
ATT-B
VF
ATT-A
VG
D-GND
D+5V
RESET
CN107 15P
R581 1k
R290 1k
B+
B-
R404 10k
R405 22k
Q401 2SA1175 RELAY SW
RY401
22.8
22.7
22
R407 3.3k
Q402 2SC2785 RELAY DRIVE
R406 270 2W
D401 US1090M
R408 2.2k
0.8
IC401
PROTECT
IC401 μPC1237HA
2.8
0.8
2.2
3
R411 1k
R403 12k
C402 100 10V
R402 33k
R412 270 2W
RY402
Q403 2SC2785 RELAY DRIVE
D402 US1090M
0.9
R409 3.3k
R410 2.2k
1.6
L201 1.9μH
R207 10
R257 10
L251 1.9μH
C259 0.068 TF
C260 0.068 TF
R258 10
TM101 4P
REAR SPEAKER
R208 10
C210 0.068 TF
C209 0.068 TF
TM102 2P
CENTER SPEAKER
C511 0.068 TF
C512 0.068 TF
R508 10
J103 2P
CENTER OUT
C513 220p
IC703
+5V REG RESET
IC703 L78MR06
5.1
D715 1N4148M
D+5V
5.2
4.9
14.9
C716 100 10V
C714 0.1 50V
C713 10 50V
C712 1000 25V
C715 0.1
EB 2
VG
C724 100 25V
VF
D714 UZP5.6B
Q701 2SB1116 -20V REG
-19.7
-21.3
-20.4
R704 4.7k
D712 11ES2
R703 47 1/2W
R706 10k
R705 47k
C723 47 50V
C722 10 50V
D713 UZL-27L
C721 47 50V
D711 11ES2
C720 47 35V
D707 11ES2
D708 11ES2
IC701
IC701 MSF7809L
+9V REG
A+9V
9
15
C709 470 16V
C707 10 50V
C705 2200 25V
D703 11ES2
D704 11ES2
PS701 3.15A
C755 0.0047
FB2 0μH
C710 470 16V
-9.2
C708 10 50V
D705 11ES2
C756 0.0047
IC702 MSF7909L
-15.4
C706 2200 25V
D706 11ES2
PS702 3.15A
22.8
+B
IC702
-9V REG
C701 3300 35V
D701 D3SBA20-4101
C751 0.1 TF
F1 T2.0AL 250V
F2 T2.0AL 250V
EB 1
C702 3300 35V
C752 0.1 TF
-B
-23.1
R701 15k
D710 1N4148M
R702 15k
C711 2.2 50V
2.8
D709 1N4148M
E MODEL
T901 POWER TRANSFORMER
VS1
VOLTAGE SELECTOR
220-240V 110-120V
BLU
GRY
ORG
BRN
RED
V10
EXCEPT E MODEL
T901 POWER TRANSFORMER
CN1 2P
C1 10000p 400V
RY1
D1 US1090M

25 | 26 | 27 | 28



NOTE

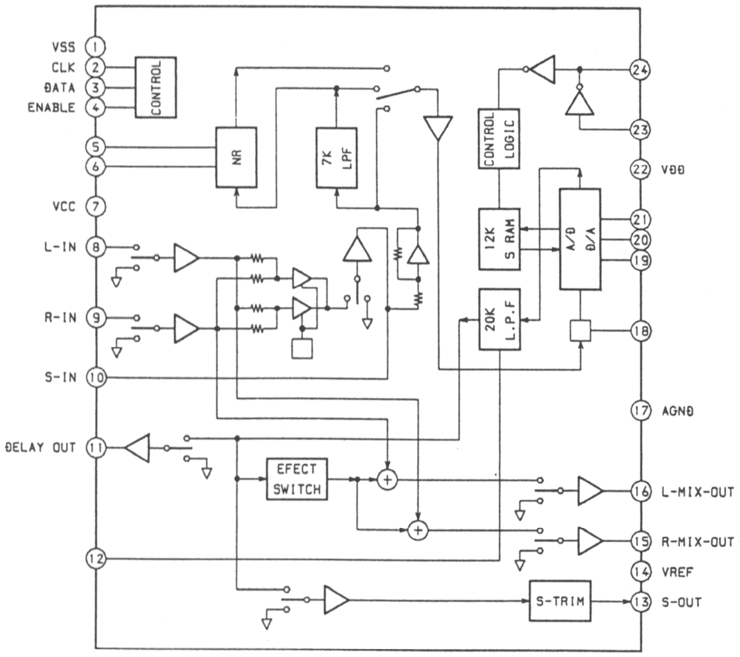
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % :indicates tolerance.
- △ :internal component.
- ▭ :nonflammable resistor.
- ▭ :panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

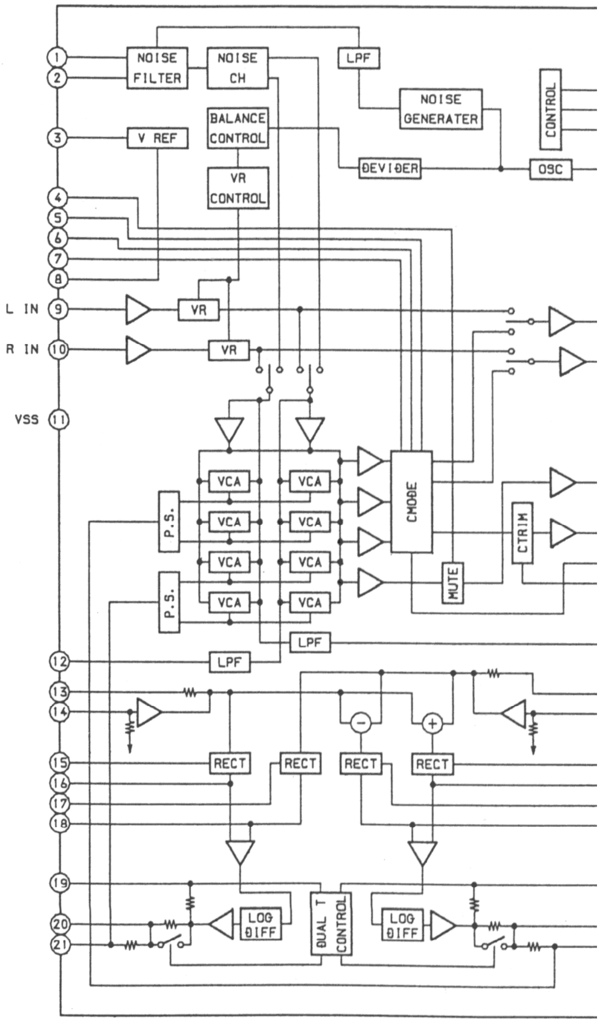
- B+ :B+ Line.
- B− :B- Line.
- Voltages and waveforms are dc with respect to ground in service mode. (See page 2)
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Signal path.
  - ⇨ :INPUT
  - F⇨ :FRONT
  - S⇨ :SURROUND
  - C⇨ :CENTER

2-5. IC BLOCK DIAGRAMS — MAIN SECTION —

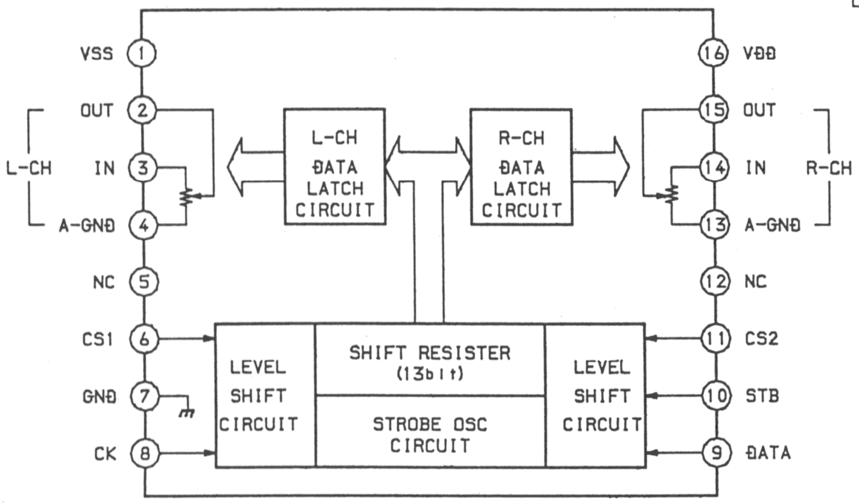
IC300 LV1010N

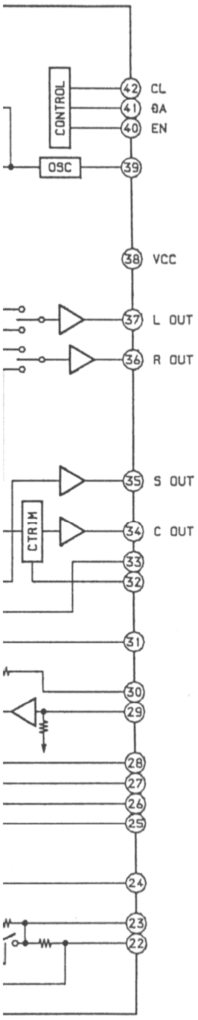

VSS
CLK
ĐATA
ENABLE
VCC
L-IN
R-IN
S-IN
ĐELAY OUT
CONTROL
NR
7K LPF
CONTROL LOGIC
12K S RAM
A/Đ Đ/A
20K L.P.F
EFECT SWITCH
S-TRIM
VĐĐ
AGNĐ
L-MIX-OUT
R-MIX-OUT
VREF
S-OUT
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

IC301 LA2785

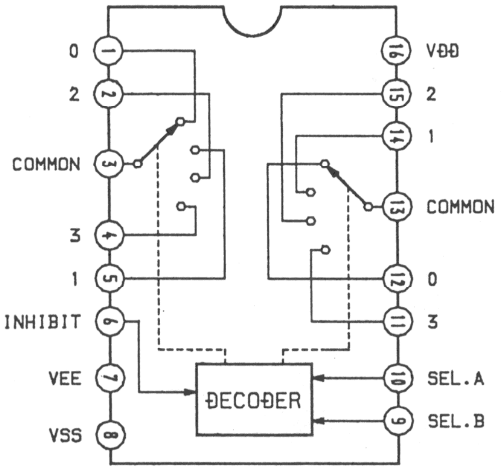

NOISE FILTER
NOISE CH
LPF
NOISE GENERATER
CONTROL
V REF
BALANCE CONTROL
ĐEVIĐER
OSC
VR CONTROL
L IN
R IN
VSS
VR
VR
VCA
VCA
VCA
VCA
VCA
VCA
VCA
VCA
P.S.
P.S.
CMOĐE
CTRIM
MUTE
LPF
LPF
RECT
RECT
RECT
RECT
LOG ĐIFF
ĐUAL T CONTROL
LOG ĐIFF
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

IC302 TC9210P

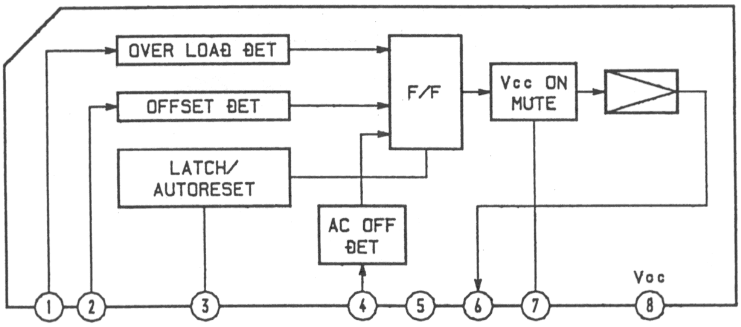

VSS
OUT
L-CH
IN
A-GNĐ
NC
CS1
GNĐ
CK
L-CH ĐATA LATCH CIRCUIT
R-CH ĐATA LATCH CIRCUIT
LEVEL SHIFT CIRCUIT
SHIFT RESISTER (13bit)
STROBE OSC CIRCUIT
LEVEL SHIFT CIRCUIT
VĐĐ
OUT
IN
R-CH
A-GNĐ
NC
CS2
STB
ĐATA
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16


CONTROL
42 CL
41 θA
40 EN
OSC
39
38 VCC
37 L OUT
36 R OUT
35 S OUT
CTRIM
34 C OUT
33
32
31
30
29
28
27
26
25
24
23
22

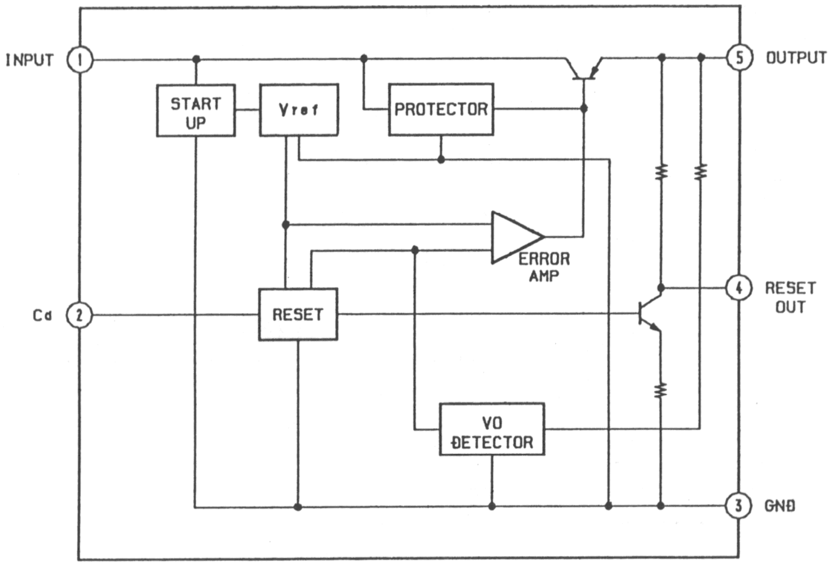
IC303 MC14052


0
2
COMMON
3
1
INHIBIT
VEE
VSS
1
2
3
4
5
6
7
8
16
15
14
13
12
11
10
9
VDD
2
1
COMMON
0
3
SEL.A
SEL.B
DECODER

IC401 µPC1237HA

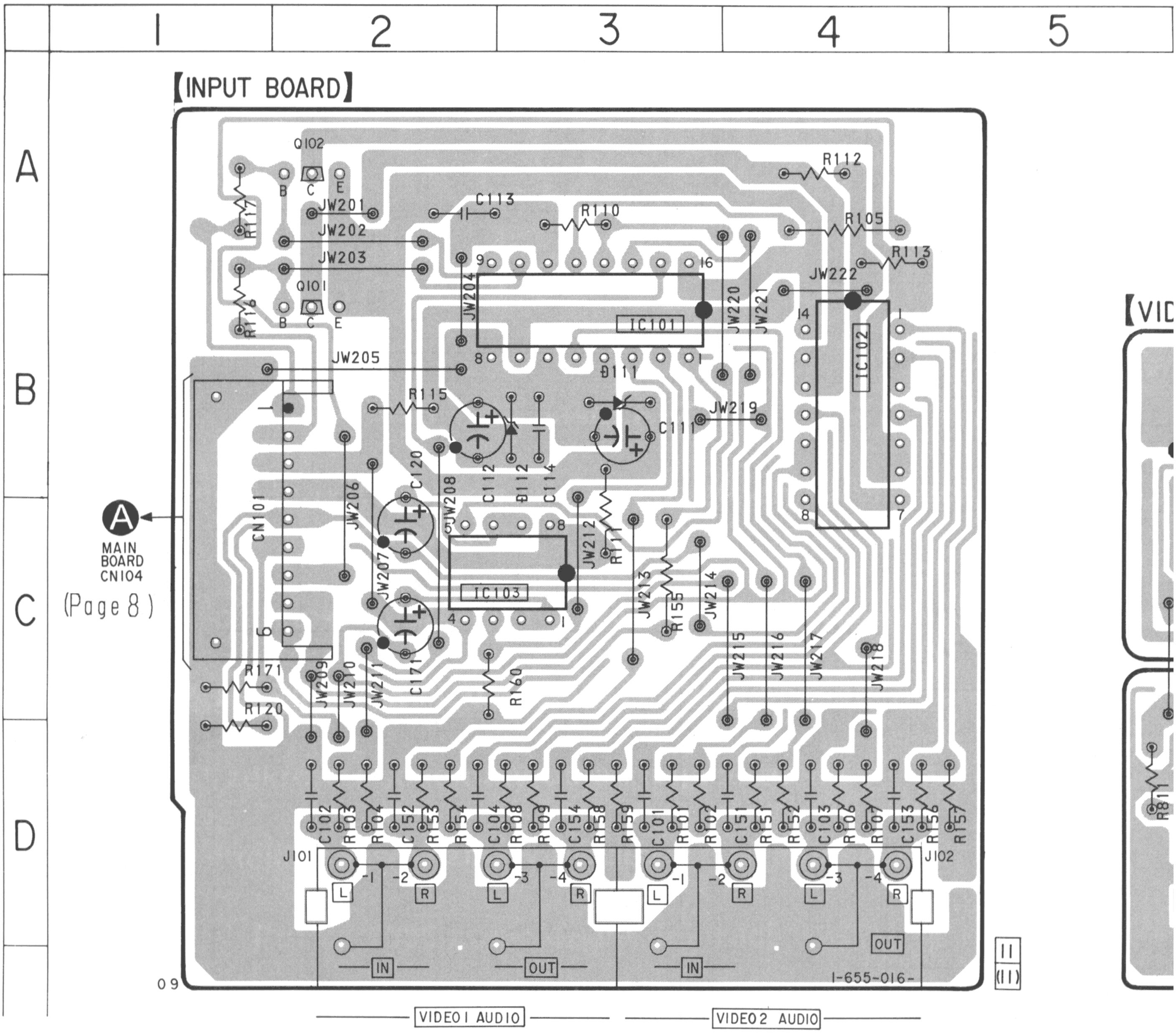

OVER LOAD DET
OFFSET DET
LATCH/ AUTORESET
F/F
Vcc ON MUTE
AC OFF DET
Vcc
1
2
3
4
5
6
7
8

IC703 L78MR06


INPUT
1
START UP
Vref
PROTECTOR
5
OUTPUT
ERROR AMP
Cd
2
RESET
4
RESET OUT
VO DETECTOR
3
GND

2-6. PRINTED WIRING BOARD — IN/OUT SECTION —

• See page 4 for Circuit Boards Location.


1
2
3
4
5
A
B
C
D
[INPUT BOARD]
Q102
B C E
JW201
JW202
JW203
Q101
B C E
R117
R116
C113
R110
R112
R105
R113
JW222
IC101
9
16
8
1
JW204
JW220
JW221
JW205
D111
R115
C111
JW219
14
1
IC102
8
7
CN101
JW206
C120
JW208
C112
D112
C114
JW212
R111
IC103
4
8
1
JW207
C171
JW213
R155
JW214
JW215
JW216
JW217
JW218
R160
R171
R120
JW209
JW210
JW211
9
C102
R103
R104
C152
R153
R154
C104
R108
R109
C154
R158
R159
C101
R101
R102
C151
R151
R152
C103
R106
R107
C153
R156
R157
J101
J102
-1
-2
-3
-4
L
R
IN
OUT
1-655-016-
11
(11)
09
A
MAIN BOARD CN104
(Page 8)
VIDEO1 AUDIO
VIDEO2 AUDIO
[VID
R811

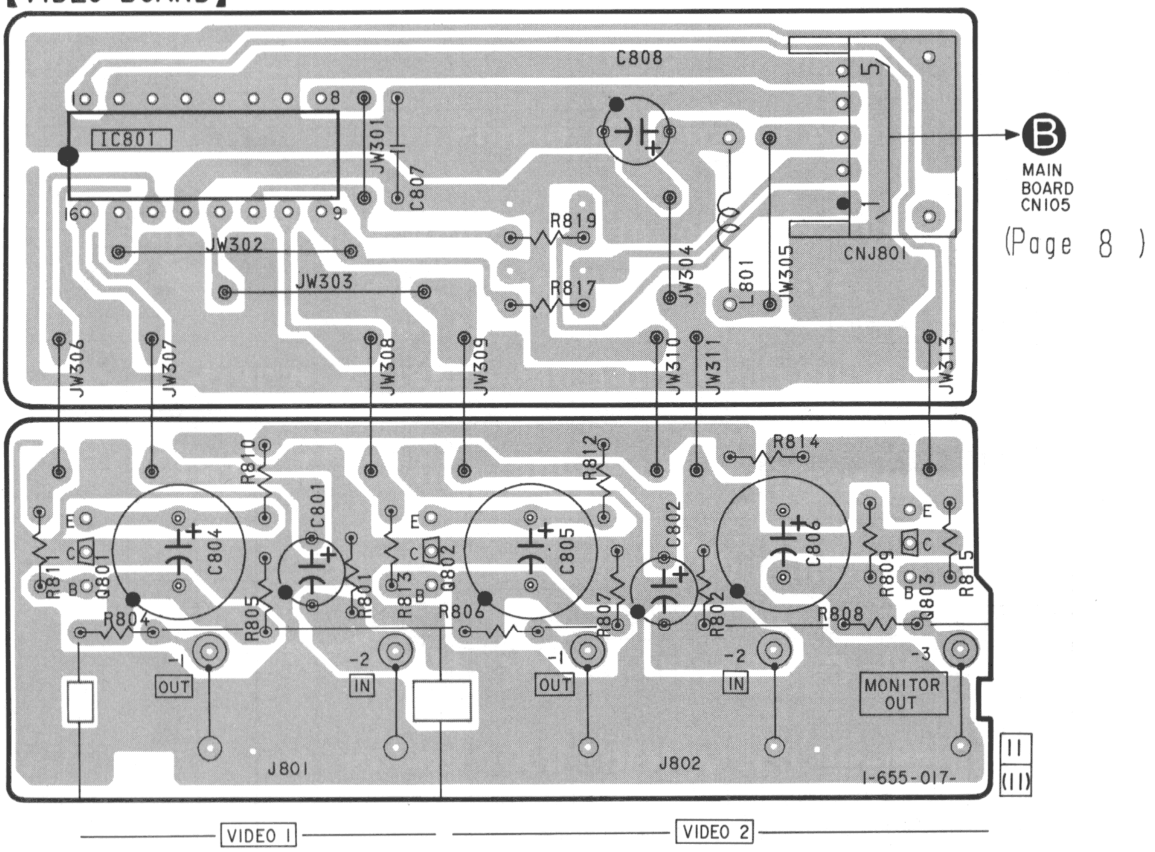
• Semiconductor Location

Ref. No.	Location
D111	B-3
D112	B-3
IC101	B-3
IC102	B-4
IC103	C-2
IC801	B-6
Q101	B-2
Q102	A-2
Q801	D-6
Q802	D-7
Q803	D-9

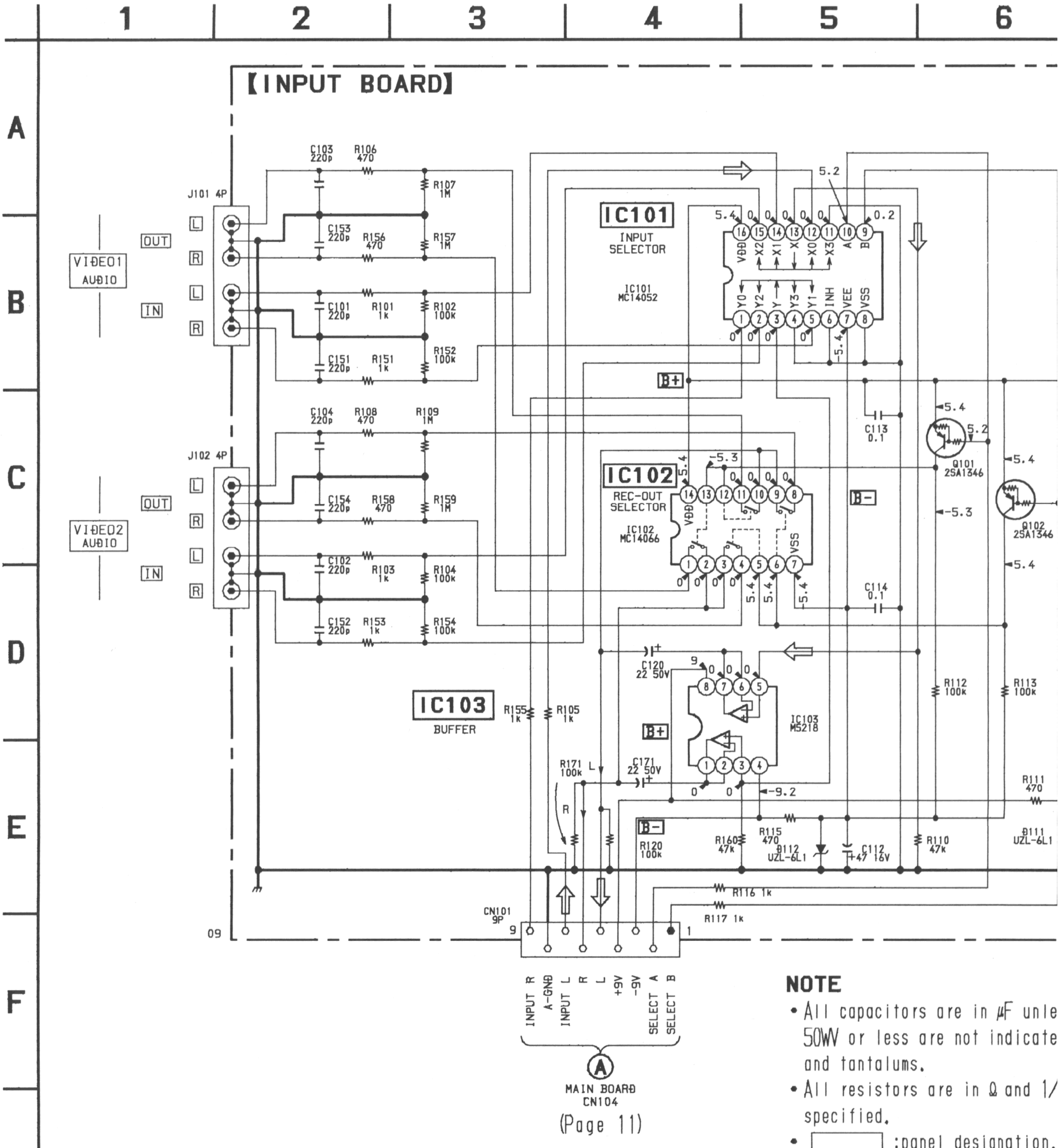
Note:

- o—— : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.

【VIDEO BOARD】

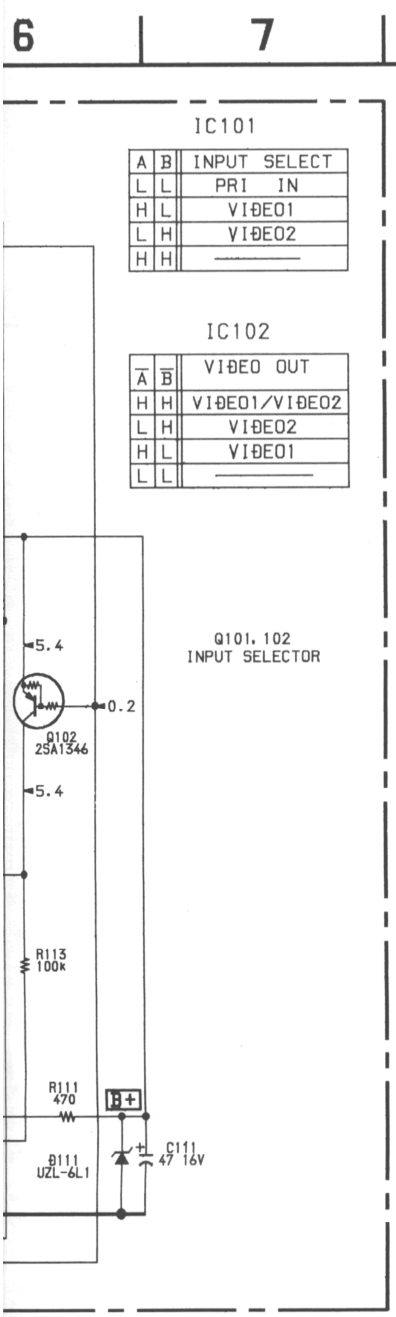

C808
1
8
16
9
IC801
JW301
C807
R819
R817
JW302
JW303
JW304
L801
JW305
CNJ801
5
1
B
MAIN
BOARD
CN105
(Page 8)
JW306
JW307
JW308
JW309
JW310
JW311
JW313
R810
C801
R812
R814
C802
E
C
B
R811
Q801
C804
R804
R805
R801
R813
Q802
R806
C805
R807
R802
C806
R809
Q803
R815
R808
-1
OUT
-2
IN
-1
OUT
-2
IN
-3
MONITOR
OUT
J801
J802
1-655-017-
11
(11)
VIDEO 1
VIDEO 2

2-7. SCHEMATIC DIAGRAM — IN/OUT SECTION —


1
2
3
4
5
6
A
B
C
D
E
F
G
【INPUT BOARD】
VIDEO1 AUDIO
VIDEO2 AUDIO
OUT
IN
L
R
J101 4P
J102 4P
C103 220p
R106 470
R107 1M
C153 220p
R156 470
R157 1M
C101 220p
R101 1k
R102 100k
C151 220p
R151 1k
R152 100k
C104 220p
R108 470
R109 1M
C154 220p
R158 470
R159 1M
C102 220p
R103 1k
R104 100k
C152 220p
R153 1k
R154 100k
IC101
INPUT SELECTOR
IC101 MC14052
VDD X2 X1 X X0 X3 A B
Y0 Y2 Y Y3 Y1 INH VEE VSS
5.4
5.2
0.2
IC102
REC-OUT SELECTOR
IC102 MC14066
VDD
VSS
-5.3
B+
B-
C113 0.1
C114 0.1
Q101 2SA1346
Q102 2SA1346
5.4
-5.3
IC103
BUFFER
IC103 M5218
R155 1k
R105 1k
C120 22 50V
C171 22 50V
R171 100k
R120 100k
R160 47k
R115 470
Q112 UZL-6L1
C112 47 16V
R110 47k
R112 100k
R113 100k
R111 470
Q111 UZL-6L1
R116 1k
R117 1k
-9.2
CN101 9P
09
INPUT R
A-GND
INPUT L
R
L
+9V
-9V
SELECT A
SELECT B
A
MAIN BOARD CN104
(Page 11)

NOTE

- All capacitors are in μF unle
  50WV or less are not indicate
  and tantalums.
- All resistors are in Ω and 1/
  specified.
- ▭ :panel designation.
- Signal path.
  ⇨ :INPUT


6
7
Q101, 102
INPUT SELECTOR
5.4
0.2
Q102
2SA1346
5.4
R113
100k
R111
470
B+
D111
UZL-6L1
C111
47 16V

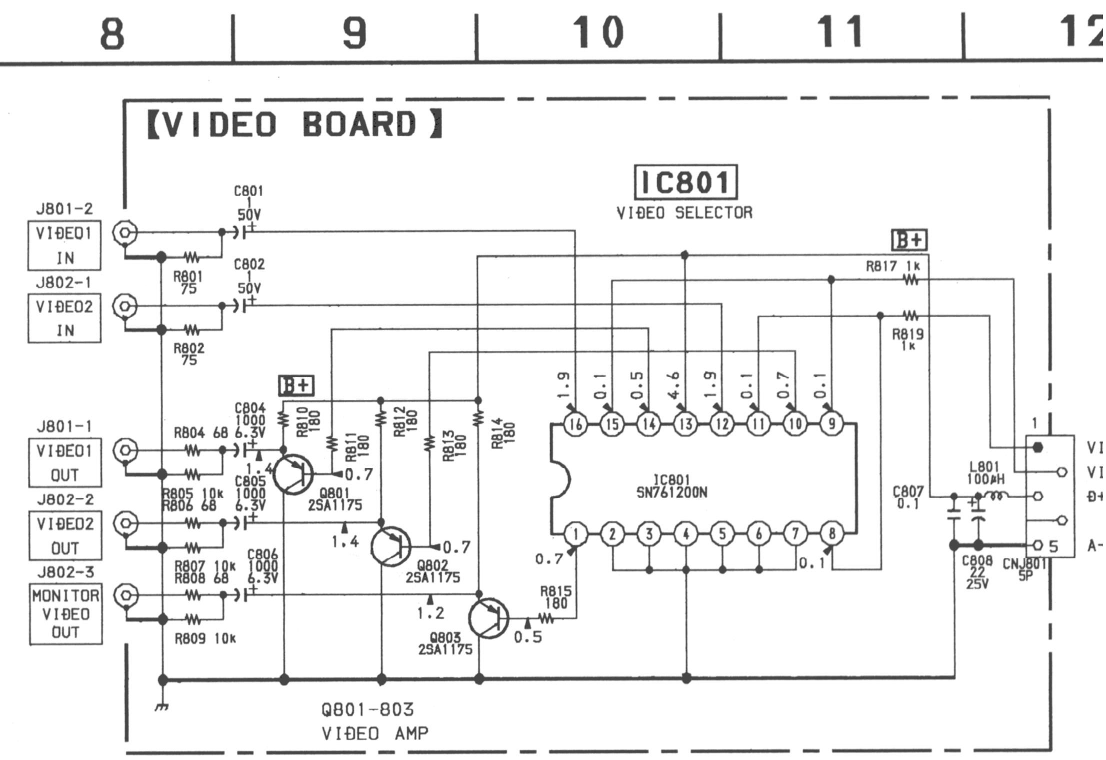
IC101

A	B	INPUT SELECT
L	L	PRI IN
H	L	VIDEO1
L	H	VIDEO2
H	H	————

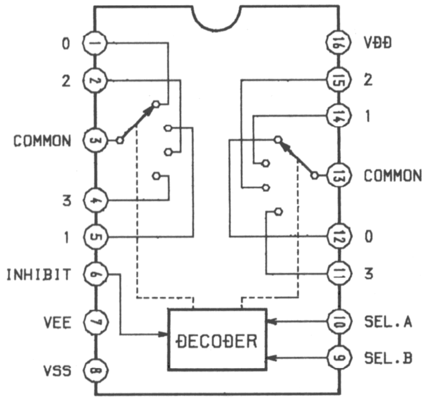
IC102

$\overline{A}$	$\overline{B}$	VIDEO OUT
H	H	VIDEO1/VIDEO2
L	H	VIDEO2
H	L	VIDEO1
L	L	————

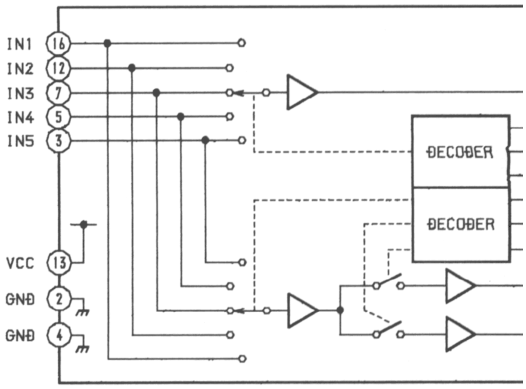
【VIDEO BOARD】


8
9
10
11
12
IC801
VIDEO SELECTOR
B+
J801-2
VIDEO1 IN
J802-1
VIDEO2 IN
J801-1
VIDEO1 OUT
J802-2
VIDEO2 OUT
J802-3
MONITOR VIDEO OUT
C801 1 50V
C802 1 50V
R801 75
R802 75
C804 1000 6.3V
R804 68
R805 10k
R806 68
C805 1000 6.3V
R807 10k
R808 68
C806 1000 6.3V
R809 10k
R810 180
R811 180
R812 180
R813 180
R814 180
R815 180
R817 1k
R819 1k
Q801 2SA1175
Q802 2SA1175
Q803 2SA1175
1.4
0.7
1.4
0.7
1.2
0.5
0.7
0.1
1.9
0.1
0.5
4.6
1.9
0.1
0.7
0.1
IC801
SN761200N
L801 100µH
C807 0.1
C808 22 25V
CNJ801 5P
1
5
Q801-803
VIDEO AMP

IC101 MC14052


0
2
COMMON
3
1
INHIBIT
VEE
VSS
VDD
2
1
COMMON
0
3
SEL.A
SEL.B
DECODER

IC801 SN761200N

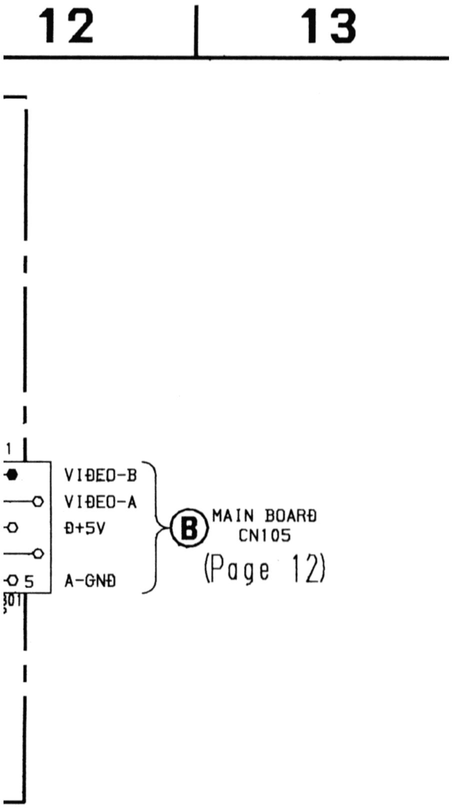

IN1
IN2
IN3
IN4
IN5
VCC
GND
GND
DECODER
DECODER

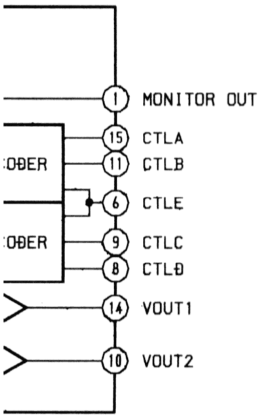
µF unless otherwise noted.pF:µµF
indicated except for electrolytics

Ω and 1/4W or less unless otherwise

ignation.

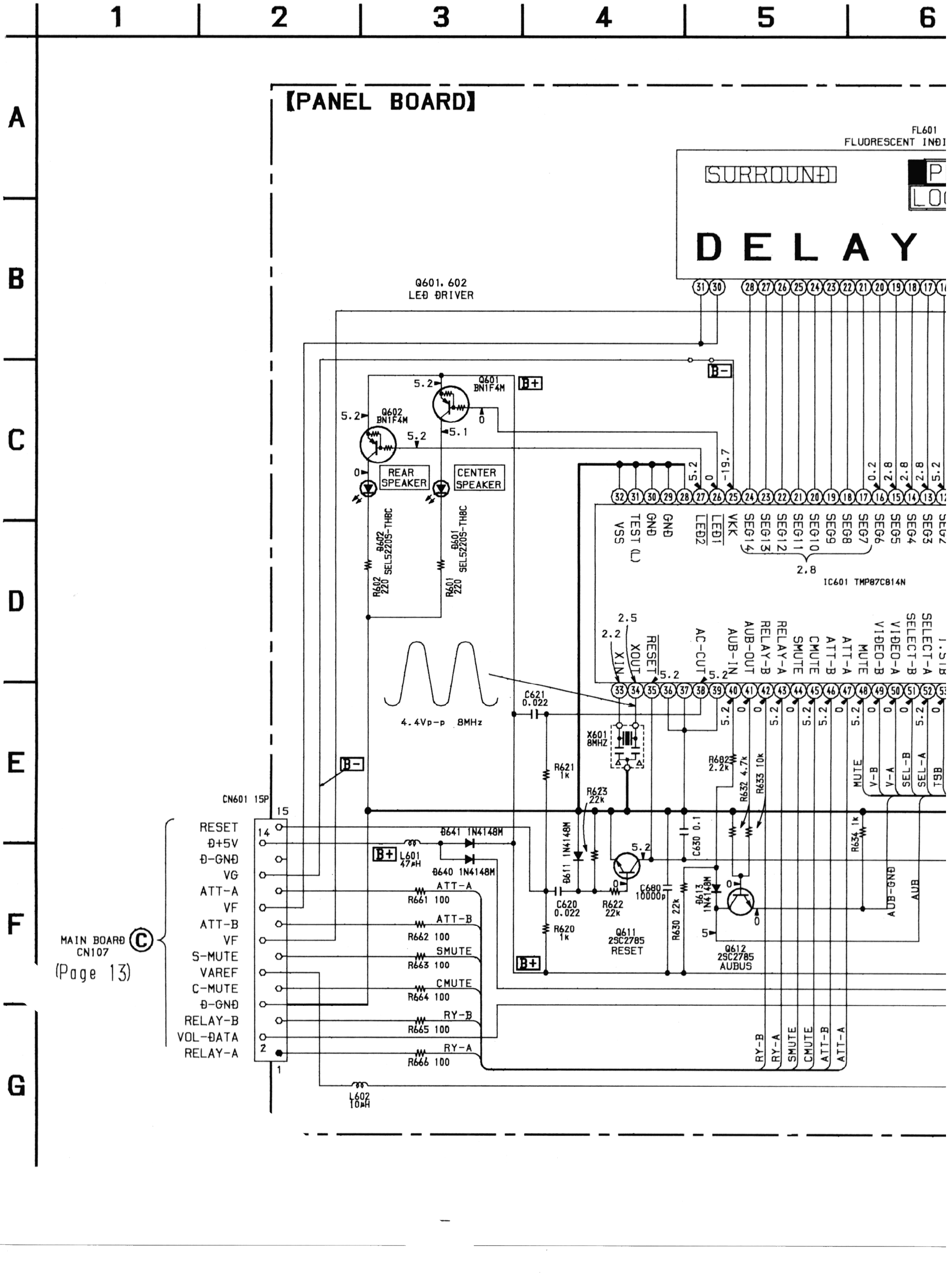
- B+ :B+ Line.
- B- :B- Line.
- Voltages and waveforms are dc with respect to ground in service mode. (See page 2)
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.

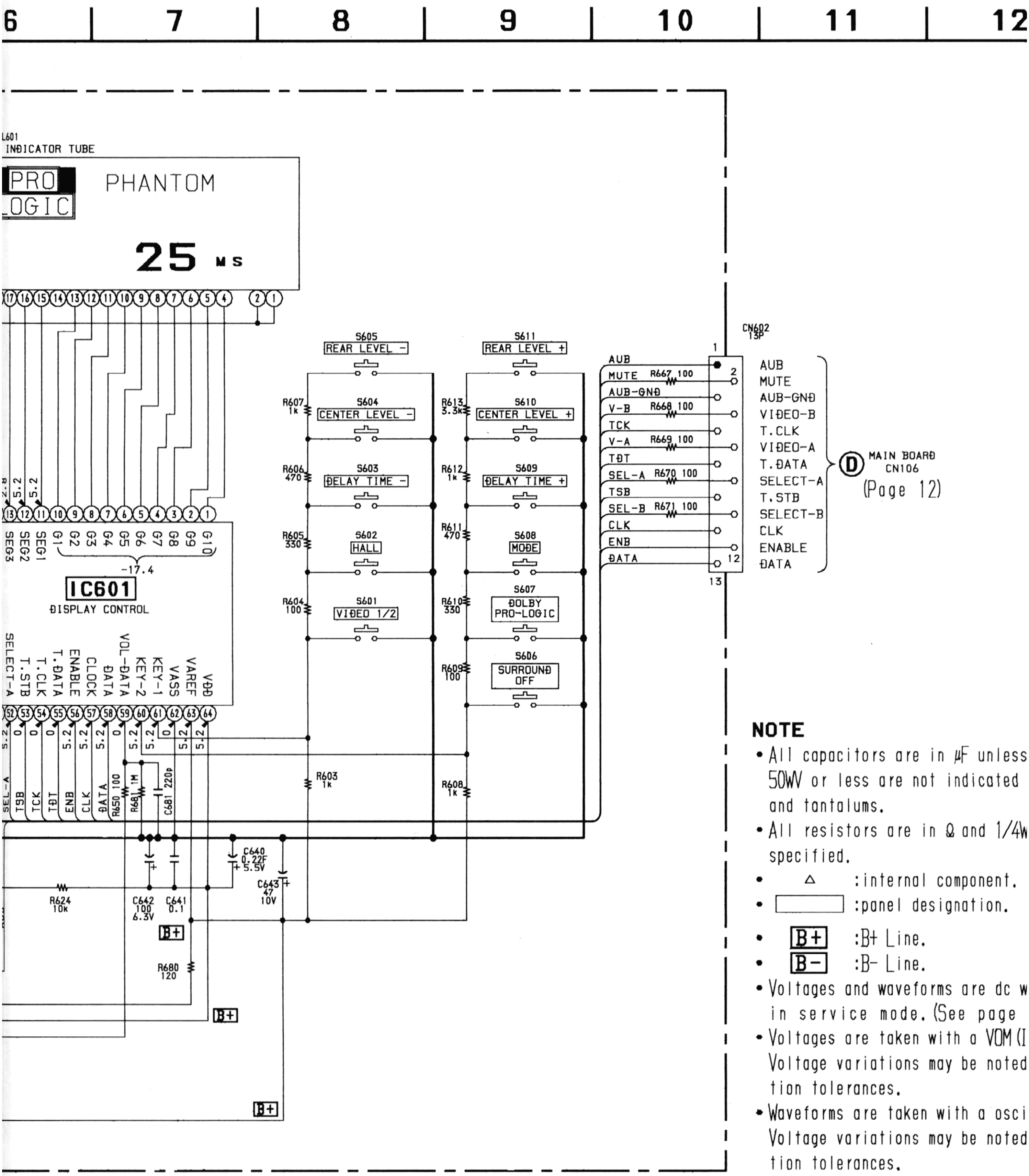

12
13
1
VIDEO-B
VIDEO-A
D+5V
5
A-GND
301
B
MAIN BOARD
CN105
(Page 12)


1 MONITOR OUT
15 CTLA
CODER
11 CTLB
6 CTLE
CODER
9 CTLC
8 CTLD
14 VOUT1
10 VOUT2

2-9. SCHEMATIC DIAGRAM — PANEL SECTION —

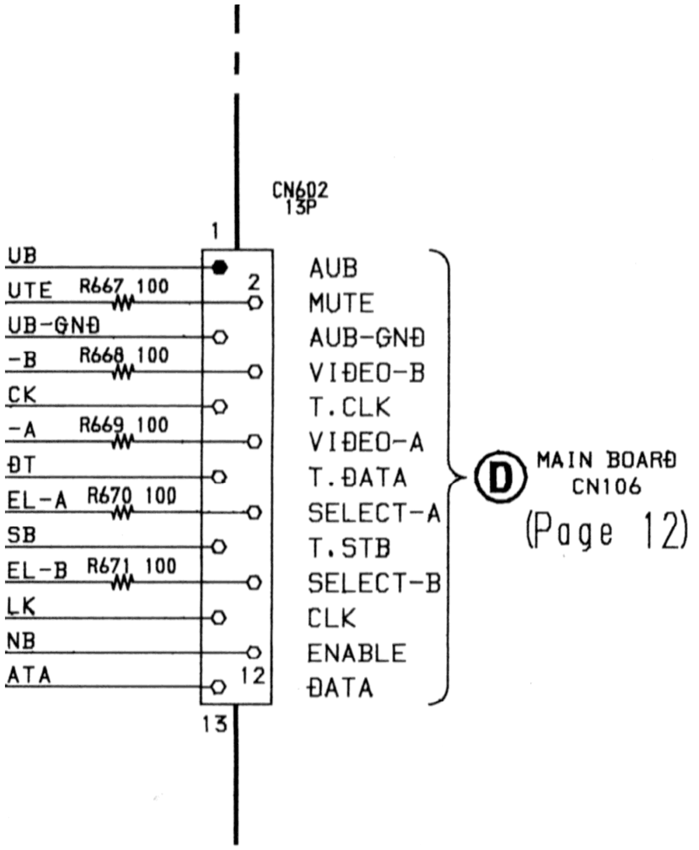
• See page 28 for IC Pin Function. (IC601)


1
2
3
4
5
6
A
B
C
D
E
F
G
【PANEL BOARD】
FL601
FLUORESCENT INDI
SURROUND
DELAY
Q601, 602
LED DRIVER
Q601
BN1F4M
Q602
BN1F4M
B+
B-
REAR SPEAKER
CENTER SPEAKER
D602
SEL5220S-THBC
D601
SEL5220S-THBC
R602
220
R601
220
VSS
TEST (L)
GND
GND
LED2
LED1
VKK
SEG14
SEG13
SEG12
SEG11
SEG10
SEG9
SEG8
SEG7
SEG6
SEG5
SEG4
SEG3
2.8
IC601 TMP87C814N
XIN
XOUT
RESET
AC-CUT
AUD-IN
AUD-OUT
RELAY-B
RELAY-A
SMUTE
CMUTE
ATT-B
ATT-A
MUTE
VIDEO-B
VIDEO-A
SELECT-B
SELECT-A
4.4Vp-p 8MHz
C621
0.022
X601
8MHZ
R621
1k
R623
22k
R682
2.2k
R632 4.7k
R633 10k
MUTE
V-B
V-A
SEL-B
SEL-A
TSB
CN601 15P
RESET
D+5V
D-GND
VG
ATT-A
VF
ATT-B
VF
S-MUTE
VAREF
C-MUTE
D-GND
RELAY-B
VOL-DATA
RELAY-A
MAIN BOARD C
CN107
(Page 13)
D641 1N4148M
D640 1N4148M
L601
47μH
R661 100
R662 100
R663 100
R664 100
R665 100
R666 100
ATT-A
ATT-B
SMUTE
CMUTE
RY-B
RY-A
C620
0.022
R620
1k
D611 1N4148M
R622
22k
Q611
2SC2785
RESET
C680
10000p
C630 0.1
R630 22k
D613
1N4148M
Q612
2SC2785
AUDUS
R634 1k
AUD-GND
AUD
RY-B
RY-A
SMUTE
CMUTE
ATT-B
ATT-A
L602
10μH
5.2
5.1
0
-19.7
0.2
2.8
2.5
2.2
5


6
7
8
9
10
11
12
L601
INDICATOR TUBE
PRO
LOGIC
PHANTOM
25 MS
IC601
DISPLAY CONTROL
SEG3 SEG2 SEG1 G1 G2 G3 G4 G5 G6 G7 G8 G9 G10
-17.4
SELECT-A T.STB T.DATA T.CLK ENABLE CLOCK DATA VOL-DATA KEY-2 KEY-1 VASS VAREF VDD
S605 REAR LEVEL -
S611 REAR LEVEL +
S604 CENTER LEVEL -
S610 CENTER LEVEL +
S603 DELAY TIME -
S609 DELAY TIME +
S602 HALL
S608 MODE
S601 VIDEO 1/2
S607 DOLBY PRO-LOGIC
S606 SURROUND OFF
R607 1k
R606 470
R605 330
R604 100
R613 3.3k
R612 1k
R611 470
R610 330
R609 100
R603 1k
R608 1k
R667 100
R668 100
R669 100
R670 100
R671 100
R650 100
R681 1M
C681 220p
R624 10k
C642 100 6.3V
C641 0.1
C640 0.22F 5.5V
C643 47 10V
R680 120
B+
CN602 13P
AUB
MUTE
AUB-GND
V-B
TCK
V-A
TDT
SEL-A
TSB
SEL-B
CLK
ENB
DATA
AUB
MUTE
AUB-GND
VIDEO-B
T.CLK
VIDEO-A
T.DATA
SELECT-A
T.STB
SELECT-B
CLK
ENABLE
DATA
D
MAIN BOARD CN106
(Page 12)
SEL-A TSB TCK TDT ENB CLK DATA

NOTE

- All capacitors are in μF unless
  50WV or less are not indicated
  and tantalums.
- All resistors are in Ω and 1/4W
  specified.
- △ :internal component.
- ☐ :panel designation.
- B+ :B+ Line.
- B- :B- Line.
- Voltages and waveforms are dc w
  in service mode. (See page
- Voltages are taken with a VOM (I
  Voltage variations may be noted
  tion tolerances.
- Waveforms are taken with a osci
  Voltage variations may be noted
  tion tolerances.


CN602
13P
1
UB
UTE
R667 100
2
UB-GND
-B
R668 100
CK
-A
R669 100
DT
EL-A
R670 100
SB
EL-B
R671 100
LK
NB
ATA
12
13
AUB
MUTE
AUB-GND
VIDEO-B
T.CLK
VIDEO-A
T.DATA
SELECT-A
T.STB
SELECT-B
CLK
ENABLE
DATA
D
MAIN BOARD
CN106
(Page 12)

NOTE

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ :internal component.
- ☐ :panel designation.
- B+ :B+ Line.
- B− :B− Line.
- Voltages and waveforms are dc with respect to ground in service mode. (See page 2)
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

2-10. IC PIN FUNCTION

• IC601 TMP87C814N Display Control

Pin No.	Pin Name	I/O	Function
1 to 10	G1 to G10	O	FL display grid output
11 to 24	SEG1 to SEG14	O	FL display segment output
25	VKK	–	–27V (FL display)
26, 27	$\overline{\text{LED1}}$, $\overline{\text{LED2}}$	O	LED driver output
28	——	–	Connect to GND
29, 30	GND	–	GND
31	TEST (L)	–	Connect to GND
32	VSS	–	GND
33	XIN	I	Clock oscillator (8MHz)
34	XOUT	O	
35	$\overline{\text{RESET}}$	I	System reset input
36, 37	——	–	Connect to GND
38	AC-CUT	I	Power on detect
39	——	–	Connect to GND
40	AUB-IN	I	AU-BUS input
41	AUB-OUT	O	AU-BUS output
42	RELAY-A	O	Center speaker relay drive
43	RELAY-B	O	Rear speaker relay drive
44	SMUTE	O	Rear speaker mute
45	CMUTE	O	Center speaker mute
46	ATT-B	O	Input function ATT control
47	ATT-A	O	
48	MUTE	O	Front speaker mute
49	VIDEO-B	O	Video output select
50	VIDEO-A	O	
51	SELECT-B	O	Audio signal select
52	SELECT-A	O	
53	T. STB	O	IC302 TC9210P strobe output
54	T. DATA	O	IC302 TC9210P data output
55	T. CLK	O	IC302 TC9210P clock output
56	ENABLE	O	IC300 LV1010N & IC301 LA2785 enable output
57	CLOCK	O	IC300 LV1010N & IC301 LA2785 clock output
58	DATA	O	IC300 LV1010N & IC301 LA2785 data output
59	VOL-DATA	O	Volume position data output
60	KEY-2	I	Key input
61	KEY-1	I	
62	VASS	–	GND
63	VAREF	–	AD reference voltage
64	VDD	–	+5V

SECTION 3
EXPLODED VIEWS

NOTE:

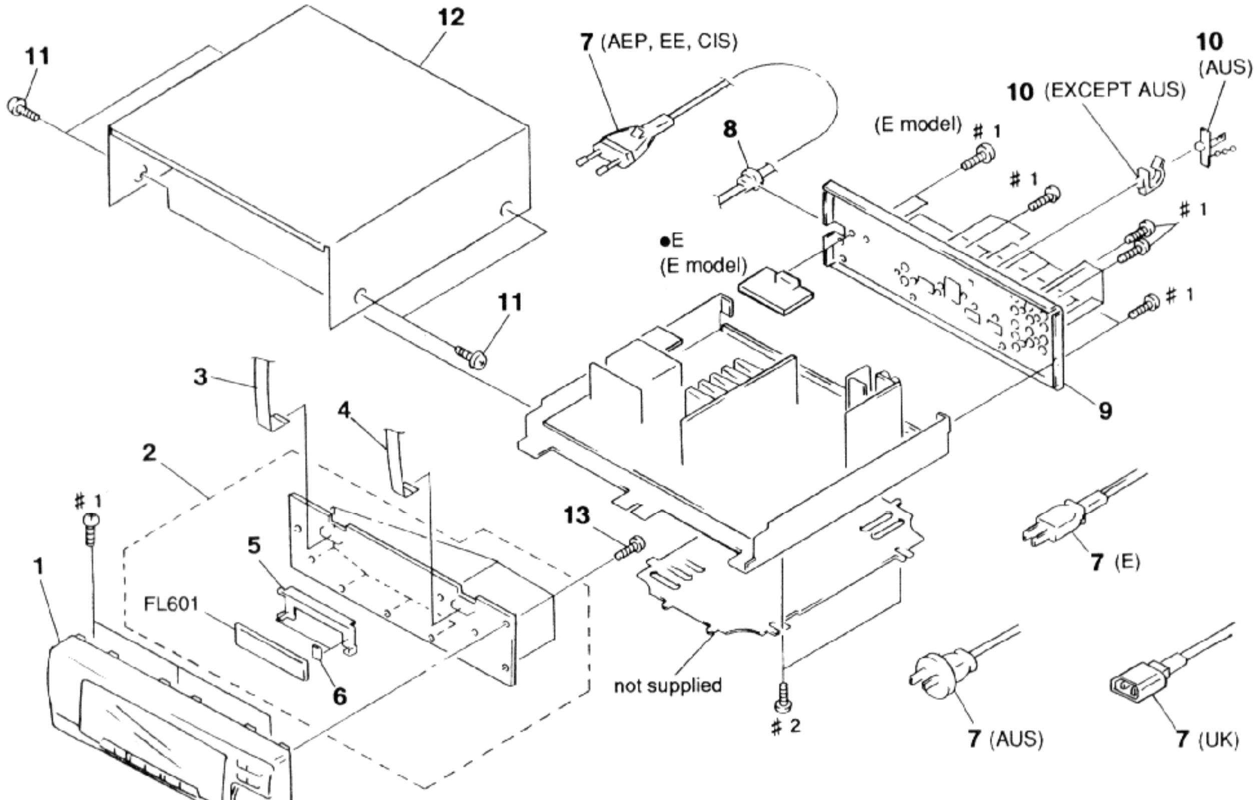
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation

EE : East European model
AUS : Australian model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

3-1. CASE SECTION

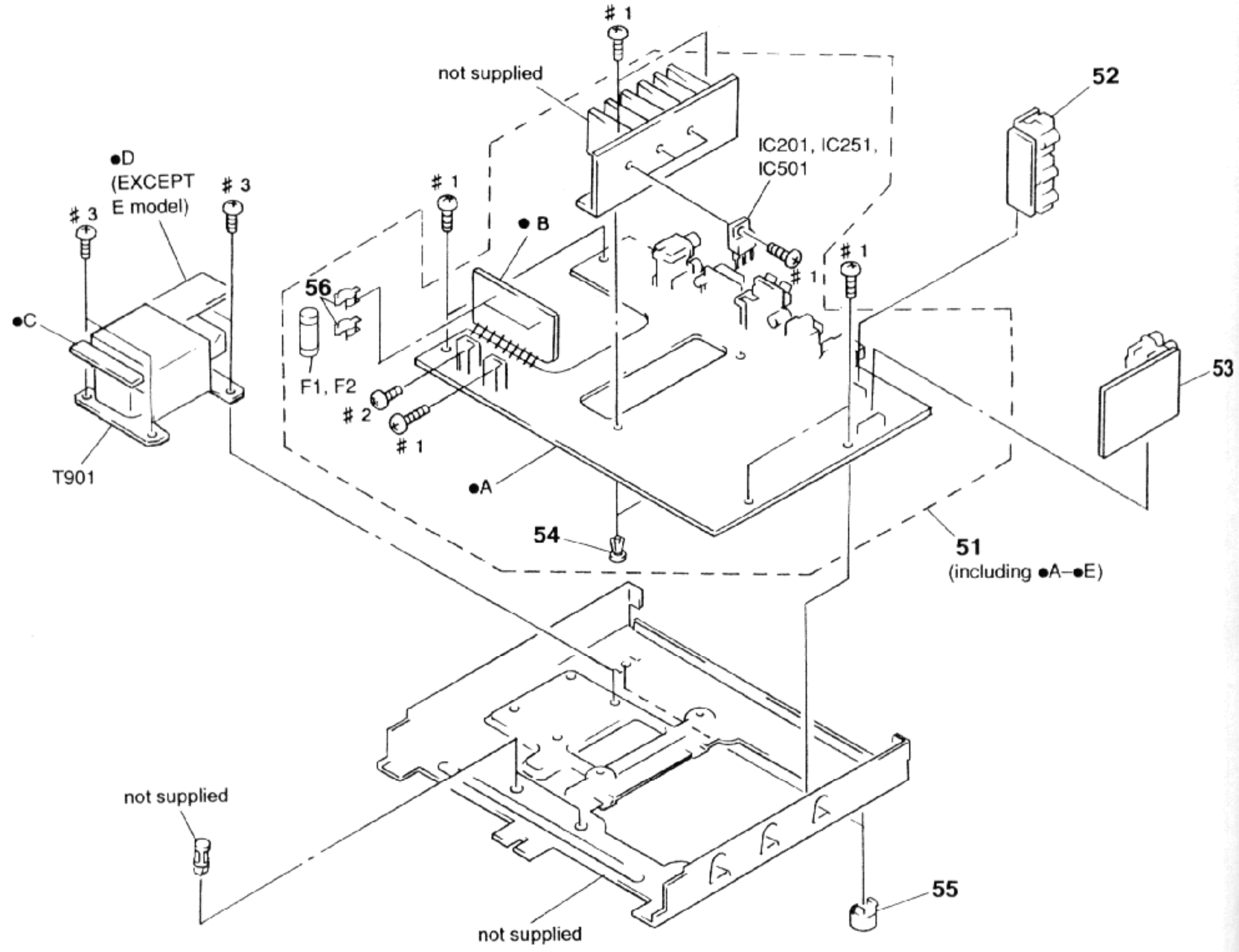
NOTE: ● A, ● B, ● C, and ● D are supplied as MAIN board (EXCEPT E model)
● A, ● B, ● C, and ● E are supplied as MAIN board (E model)



Ref. No.	Part No.	Description	Remark
1	X-4945-616-1	PANEL ASSY, FRONT	
* 2	A-4377-258-A	PANEL BOARD, COMPLETE	
3	1-690-094-11	WIRE, FLAT TYPE (15 CORE)	
4	1-590-036-11	WIRE, FLAT TYPE (13 CORE)	
* 5	4-971-122-01	HOLDER, FL TUBE	
* 6	4-949-935-01	CUSHION (FL)	
⚠7	1-575-651-71	CORD, POWER (AEP, EE, CIS)	
⚠7	1-590-379-11	CORD, POWER (UK)	
⚠7	1-775-304-11	CORD, POWER (E)	
⚠7	1-775-305-11	CORD, POWER (AUS)	
* 8	3-703-244-00	BUSHING (2104), CORD (EXCEPT E)	
8	3-703-571-11	BUSHING (S)(4516), CORD (E)	
* 9	4-971-125-01	PANEL, BACK (AEP)	
* 9	4-971-125-11	PANEL, BACK (UK)	
* 9	4-971-125-22	PANEL, BACK (EE, CIS)	
* 9	4-971-125-31	PANEL, BACK (E)	
* 9	4-971-125-41	PANEL, BACK (AUS)	
* 10	4-949-235-01	HOOK (EXCEPT AUS)	
10	4-956-370-12	BAND, PLUG FIXED (AUS)	
11	3-363-099-01	SCREW (CASE 3 TP2)	
12	4-969-777-31	CASE	
13	4-951-620-01	SCREW (2.6X8), +BVTP	
FL601	1-517-399-11	INDICATOR TUBE, FLUORESCENT	

3-2. MAIN BOARD SECTION

NOTE: ● A, ● B, ● C, and ● D are supplied as MAIN board (EXCEPT E model)
● A, ● B, ● C, and ● E are supplied as MAIN board (E model)



# 1
not supplied
52
IC201, IC251, IC501
●D (EXCEPT E model)
# 3
# 3
# 1
● B
# 1
# 1
56
●C
F1, F2
# 2
# 1
53
T901
●A
54
51 (including ●A–●E)
not supplied
55
not supplied

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
* 51	A-4377-257-A	MAIN BOARD, COMPLETE (AEP, UK, EE, CIS)	
* 51	A-4378-424-A	MAIN BOARD, COMPLETE (E)	
* 51	A-4378-425-A	MAIN BOARD, COMPLETE (AUS)	
* 52	1-655-017-11	VIDEO BOARD	
* 53	A-4377-259-A	INPUT BOARD, COMPLETE	
54	4-812-134-00	RIVET NYLON, 3.5	
55	X-4941-228-1	FOOT ASSY	
56	1-533-217-31	HOLDER, FUSE	

Ref. No.	Part No.	Description	Remark
⚠F1	1-532-203-00	FUSE (T2.0A 250V)	
⚠F2	1-532-203-00	FUSE (T2.0A 250V)	
IC201	8-759-502-32	IC SI-18752N	
IC251	8-759-502-32	IC SI-18752N	
IC501	8-759-502-32	IC SI-18752N	
⚠T901	1-427-781-11	TRANSFORMER, POWER (AEP, UK, EE, CIS)	
⚠T901	1-429-099-11	TRANSFORMER, POWER (E, AUS)	

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  EE : East European model
  AUS : Australian model

Ref. No.	Part No.	Description	Remark
*	A-4377-259-A	INPUT BOARD, COMPLETE	
		*********************	
		< CAPACITOR >	
C101	1-162-286-31	CERAMIC 220PF 10% 50V	
C102	1-162-286-31	CERAMIC 220PF 10% 50V	
C103	1-162-286-31	CERAMIC 220PF 10% 50V	
C104	1-162-286-31	CERAMIC 220PF 10% 50V	
C111	1-104-664-11	ELECT 47uF 20% 16V	
C112	1-104-664-11	ELECT 47uF 20% 16V	
C113	1-164-159-11	CERAMIC 0.1uF 50V	
C114	1-164-159-11	CERAMIC 0.1uF 50V	
C120	1-124-916-11	ELECT 22uF 20% 63V	
C151	1-162-286-31	CERAMIC 220PF 10% 50V	
C152	1-162-286-31	CERAMIC 220PF 10% 50V	
C153	1-162-286-31	CERAMIC 220PF 10% 50V	
C154	1-162-286-31	CERAMIC 220PF 10% 50V	
C171	1-124-916-11	ELECT 22uF 20% 63V	
		< CONNECTOR >	
* CN101	1-569-504-11	PIN, CONNECTOR 9P	
		< DIODE >	
D111	8-719-933-33	DIODE HZS6A1L	
D112	8-719-933-33	DIODE HZS6A1L	
		< IC >	
IC101	8-759-000-48	IC MC14052BCP	
IC102	8-759-000-49	IC MC14066BCP	
IC103	8-759-634-51	IC M5218AP	
		< JACK >	
J101	1-695-188-21	JACK, PIN 4P (VIDEO1 AUDIO)	
J102	1-695-188-21	JACK, PIN 4P (VIDEO2 AUDIO)	
		< TRANSISTOR >	
Q101	8-729-900-63	TRANSISTOR DTA124ES	
Q102	8-729-900-63	TRANSISTOR DTA124ES	
		< RESISTOR >	
R101	1-249-417-11	CARBON 1K 5% 1/4W	F
R102	1-249-441-11	CARBON 100K 5% 1/4W	
R103	1-249-417-11	CARBON 1K 5% 1/4W	F
R104	1-249-441-11	CARBON 100K 5% 1/4W	
R105	1-249-417-11	CARBON 1K 5% 1/4W	F
R106	1-249-413-11	CARBON 470 5% 1/4W	F
R107	1-247-903-00	CARBON 1M 5% 1/4W	
R108	1-249-413-11	CARBON 470 5% 1/4W	F
R109	1-247-903-00	CARBON 1M 5% 1/4W	
R110	1-249-437-11	CARBON 47K 5% 1/4W	
R111	1-249-413-11	CARBON 470 5% 1/4W	F
R112	1-249-441-11	CARBON 100K 5% 1/4W	
R113	1-249-441-11	CARBON 100K 5% 1/4W	
R115	1-249-413-11	CARBON 470 5% 1/4W	F
R116	1-249-417-11	CARBON 1K 5% 1/4W	F
R117	1-249-417-11	CARBON 1K 5% 1/4W	F
R120	1-249-441-11	CARBON 100K 5% 1/4W	
R151	1-249-417-11	CARBON 1K 5% 1/4W	F
R152	1-249-441-11	CARBON 100K 5% 1/4W	
R153	1-249-417-11	CARBON 1K 5% 1/4W	F
R154	1-249-441-11	CARBON 100K 5% 1/4W	
R155	1-249-417-11	CARBON 1K 5% 1/4W	F
R156	1-249-413-11	CARBON 470 5% 1/4W	F
R157	1-247-903-00	CARBON 1M 5% 1/4W	
R158	1-249-413-11	CARBON 470 5% 1/4W	F
R159	1-247-903-00	CARBON 1M 5% 1/4W	
R160	1-249-437-11	CARBON 47K 5% 1/4W	
R171	1-249-441-11	CARBON 100K 5% 1/4W	
***			
*	A-4377-257-A	MAIN BOARD, COMPLETE (AEP, UK, EE, CIS)	
		************************************	
*	A-4378-424-A	MAIN BOARD, COMPLETE (E)	
		************************	
*	A-4378-425-A	MAIN BOARD, COMPLETE (AUS)	
		**************************	
	1-533-217-31	HOLDER, FUSE	
	4-812-134-00	RIVET NYLON, 3.5	
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
⚠C1	1-161-744-51	CERAMIC 0.01uF 400V	

MAIN

Ref. No.	Part No.	Description				Remark
C201	1-124-907-11	ELECT	10uF	20%	50V	
C202	1-162-282-31	CERAMIC	100PF	10%	50V	
C203	1-162-282-31	CERAMIC	100PF	10%	50V	
C204	1-126-233-11	ELECT	22uF	20%	50V	
C205	1-136-165-00	FILM	0. 1uF	5%	50V	
C206	1-136-165-00	FILM	0. 1uF	5%	50V	
C207	1-136-495-11	FILM	0. 068uF	5%	50V	
C208	1-136-495-11	FILM	0. 068uF	5%	50V	
C209	1-136-495-11	FILM	0. 068uF	5%	50V	
C210	1-136-495-11	FILM	0. 068uF	5%	50V	
C215	1-136-153-00	FILM	0. 01uF	5%	50V	
C251	1-124-907-11	ELECT	10uF	20%	50V	
C252	1-162-282-31	CERAMIC	100PF	10%	50V	
C253	1-162-282-31	CERAMIC	100PF	10%	50V	
C254	1-126-233-11	ELECT	22uF	20%	50V	
C255	1-136-165-00	FILM	0. 1uF	5%	50V	
C256	1-136-165-00	FILM	0. 1uF	5%	50V	
C257	1-136-495-11	FILM	0. 068uF	5%	50V	
C258	1-136-495-11	FILM	0. 068uF	5%	50V	
C259	1-136-495-11	FILM	0. 068uF	5%	50V	
C260	1-136-495-11	FILM	0. 068uF	5%	50V	
C265	1-136-153-00	FILM	0. 01uF	5%	50V	
C271	1-106-351-00	MYLAR	2200PF	5%	200V	(AEP, UK, EE, CIS)
C271	1-137-366-11	FILM	0. 0022uF	5%	50V	(E, AUS)
C272	1-124-907-11	ELECT	10uF	20%	50V	
C273	1-106-351-00	MYLAR	2200PF	5%	200V	(AEP, UK, EE, CIS)
C273	1-137-366-11	FILM	0. 0022uF	5%	50V	(E, AUS)
C281	1-124-925-11	ELECT	2. 2uF	20%	100V	
C282	1-124-907-11	ELECT	10uF	20%	50V	
C283	1-124-925-11	ELECT	2. 2uF	20%	100V	
C285	1-162-217-31	CERAMIC	56PF	5%	50V	
C302	1-104-666-11	ELECT	220uF	20%	10V	
C303	1-136-159-00	FILM	0. 033uF	5%	50V	
C304	1-106-347-00	MYLAR	1500PF	5%	200V	
C305	1-136-159-00	FILM	0. 033uF	5%	50V	
C306	1-124-903-11	ELECT	1uF	20%	50V	
C307	1-124-907-11	ELECT	10uF	20%	50V	
C308	1-124-907-11	ELECT	10uF	20%	50V	
C309	1-162-294-31	CERAMIC	0. 001uF	10%	50V	
C310	1-126-963-11	ELECT	4. 7uF	20%	50V	
C311	1-124-925-11	ELECT	2. 2uF	20%	100V	
C312	1-162-596-11	CERAMIC	0. 022uF	30%	25V	
C313	1-164-159-11	CERAMIC	0. 1uF		50V	
C314	1-104-666-11	ELECT	220uF	20%	10V	
C316	1-124-907-11	ELECT	10uF	20%	50V	
C317	1-124-443-00	ELECT	100uF	20%	10V	
C318	1-162-292-31	CERAMIC	680PF	10%	50V	
C322	1-126-963-11	ELECT	4. 7uF	20%	50V	
C323	1-136-173-00	FILM	0. 47uF	5%	50V	
C324	1-124-477-11	ELECT	47uF	20%	25V	
C325	1-136-165-00	FILM	0. 1uF	5%	50V	
C326	1-136-165-00	FILM	0. 1uF	5%	50V	
C327	1-124-902-00	ELECT	0. 47uF	20%	50V	
C328	1-126-963-11	ELECT	4. 7uF	20%	50V	
C329	1-124-902-00	ELECT	0. 47uF	20%	50V	
C330	1-126-963-11	ELECT	4. 7uF	20%	50V	
C331	1-136-167-00	FILM	0. 15uF	5%	50V	
C332	1-126-962-11	ELECT	3. 3uF	20%	50V	
C333	1-136-167-00	FILM	0. 15uF	5%	50V	
C334	1-136-157-00	FILM	0. 022uF	5%	50V	
C335	1-136-161-00	FILM	0. 047uF	5%	50V	
C336	1-104-666-11	ELECT	220uF	20%	10V	
C337	1-124-907-11	ELECT	10uF	20%	50V	
C338	1-124-907-11	ELECT	10uF	20%	50V	
C339	1-124-907-11	ELECT	10uF	20%	50V	
C340	1-124-907-11	ELECT	10uF	20%	50V	
C341	1-104-666-11	ELECT	220uF	20%	10V	
C342	1-126-962-11	ELECT	3. 3uF	20%	50V	
C343	1-126-962-11	ELECT	3. 3uF	20%	50V	
C344	1-136-165-00	FILM	0. 1uF	5%	50V	
C345	1-136-165-00	FILM	0. 1uF	5%	50V	
C346	1-124-902-00	ELECT	0. 47uF	20%	50V	
C347	1-126-963-11	ELECT	4. 7uF	20%	50V	
C348	1-124-902-00	ELECT	0. 47uF	20%	50V	
C349	1-126-963-11	ELECT	4. 7uF	20%	50V	
C350	1-136-167-00	FILM	0. 15uF	5%	50V	
C351	1-126-962-11	ELECT	3. 3uF	20%	50V	
C352	1-136-167-00	FILM	0. 15uF	5%	50V	
C353	1-161-494-00	CERAMIC	0. 022uF		25V	
C354	1-162-282-31	CERAMIC	100PF	10%	50V	
C358	1-164-159-11	CERAMIC	0. 1uF		50V	
C371	1-104-664-11	ELECT	47uF	20%	16V	
C372	1-104-664-11	ELECT	47uF	20%	16V	
C373	1-124-925-11	ELECT	2. 2uF	20%	100V	
C374	1-124-925-11	ELECT	2. 2uF	20%	100V	
C375	1-161-494-00	CERAMIC	0. 022uF		25V	
C401	1-104-666-11	ELECT	220uF	20%	10V	
C402	1-124-443-00	ELECT	100uF	20%	10V	
C501	1-124-907-11	ELECT	10uF	20%	50V	
C502	1-162-282-31	CERAMIC	100PF	10%	50V	
C503	1-162-282-31	CERAMIC	100PF	10%	50V	
C504	1-126-233-11	ELECT	22uF	20%	50V	
C505	1-136-165-00	FILM	0. 1uF	5%	50V	
C506	1-136-165-00	FILM	0. 1uF	5%	50V	
C507	1-136-495-11	FILM	0. 068uF	5%	50V	
C508	1-136-495-11	FILM	0. 068uF	5%	50V	
C510	1-136-153-00	FILM	0. 01uF	5%	50V	
C511	1-136-495-11	FILM	0. 068uF	5%	50V	
C512	1-136-495-11	FILM	0. 068uF	5%	50V	

Ref. No.	Part No.	Description				Remark
C513	1-162-286-31	CERAMIC	220PF	10%	50V	
C572	1-124-907-11	ELECT	10uF	20%	50V	
C581	1-124-925-11	ELECT	2.2uF	20%	100V	
C582	1-124-907-11	ELECT	10uF	20%	50V	
C583	1-124-925-11	ELECT	2.2uF	20%	100V	
C585	1-162-207-31	CERAMIC	22PF	5%	50V	
C701	1-126-413-11	ELECT	3300uF	20%	35V	
C702	1-126-413-11	ELECT	3300uF	20%	35V	
C705	1-124-563-11	ELECT	2200uF	20%	25V	
C706	1-124-563-11	ELECT	2200uF	20%	25V	
C707	1-124-907-11	ELECT	10uF	20%	50V	
C708	1-124-907-11	ELECT	10uF	20%	50V	
C709	1-126-941-11	ELECT	470uF	20%	16V	
C710	1-126-941-11	ELECT	470uF	20%	16V	
C711	1-124-925-11	ELECT	2.2uF	20%	100V	
C712	1-124-557-11	ELECT	1000uF	20%	25V	
C713	1-124-907-11	ELECT	10uF	20%	50V	
C714	1-124-463-00	ELECT	0.1uF	20%	50V	
C715	1-164-159-11	CERAMIC	0.1uF		50V	
C716	1-124-443-00	ELECT	100uF	20%	10V	
C720	1-126-967-11	ELECT	47uF	20%	35V	
C721	1-124-910-11	ELECT	47uF	20%	50V	
C722	1-124-907-11	ELECT	10uF	20%	50V	
C723	1-124-910-11	ELECT	47uF	20%	50V	
C724	1-124-478-11	ELECT	100uF	20%	25V	
C751	1-136-165-00	FILM	0.1uF	5%	50V	
C752	1-136-165-00	FILM	0.1uF	5%	50V	
C755	1-161-377-00	CERAMIC	0.0047uF	30%	50V	
C756	1-161-377-00	CERAMIC	0.0047uF	30%	50V	
		< CONNECTOR >				
CN1	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P				
CN102	1-770-249-41	HOUSING, CONNECTOR (PC BOARD) 9P (SYSTEM CONTROL 3)				
CN103	1-764-016-21	HOUSING, CONNECTOR (PC BOARD) 5P (SYSTEM CONTROL 4)				
* CN104	1-569-495-11	SOCKET, CONNECTOR 9P				
* CN105	1-569-491-11	SOCKET, CONNECTOR 5P				
* CN106	1-568-832-11	SOCKET, CONNECTOR 13P				
* CN107	1-568-834-11	SOCKET, CONNECTOR 15P				
		< DIODE >				
D1	8-719-815-85	DIODE	1S1585			
D371	8-719-933-33	DIODE	HZS6A1L			
D372	8-719-933-33	DIODE	HZS6A1L			
D401	8-719-815-85	DIODE	1S1585			
D402	8-719-815-85	DIODE	1S1585			
D701	8-719-028-23	DIODE	D3SBA20-4101			
D703	8-719-024-99	DIODE	11ES2-NTA2B			
D704	8-719-024-99	DIODE	11ES2-NTA2B			
D705	8-719-024-99	DIODE	11ES2-NTA2B			

Ref. No.	Part No.	Description		Remark
D706	8-719-024-99	DIODE	11ES2-NTA2B	
D707	8-719-024-99	DIODE	11ES2-NTA2B	
D708	8-719-024-99	DIODE	11ES2-NTA2B	
D709	8-719-987-63	DIODE	1N4148M	
D710	8-719-987-63	DIODE	1N4148M	
D711	8-719-024-99	DIODE	11ES2-NTA2B	
D712	8-719-024-99	DIODE	11ES2-NTA2B	
D713	8-719-934-18	DIODE	HZS27-2L	
D714	8-719-014-66	DIODE	UZP-5.6B	
D715	8-719-987-63	DIODE	1N4148M	
		< GROUND TERMINAL >		
EB1	1-537-770-11	TERMINAL BOARD, GROUND		
EB2	1-537-770-11	TERMINAL BOARD, GROUND		
		< FUSE >		
⚠F1	1-532-203-00	FUSE (T2.0A 250V)		
⚠F2	1-532-203-00	FUSE (T2.0A 250V)		
		< COIL >		
FB1	1-412-473-21	INDUCTOR	0UH	
FB2	1-412-473-21	INDUCTOR	0UH	
		< IC >		
IC201	8-759-502-32	IC	SI-18752N	
IC251	8-759-502-32	IC	SI-18752N	
IC281	8-759-634-51	IC	M5218AP	
IC300	8-759-168-98	IC	LV1010N	
IC301	8-759-248-74	IC	LA2785	
IC302	8-759-281-42	IC	TC9210P	
IC303	8-759-000-48	IC	MC14052BCP	
IC304	8-759-634-51	IC	M5218AP	
IC401	8-759-111-68	IC	uPC1237HA	
IC501	8-759-502-32	IC	SI-18752N	
IC581	8-759-634-51	IC	M5218AP	
IC701	8-759-701-59	IC	NJM78M09FA	
IC702	8-759-604-49	IC	M5F7909L	
IC703	8-759-820-13	IC	L78MR06	
		< JACK >		
J103	1-770-157-11	JACK, PIN 2P (CENTER OUT)		
		< COIL >		
L201	1-420-872-00	COIL, AIR-CORE	1.9uH	
L251	1-420-872-00	COIL, AIR-CORE	1.9uH	
L301	1-410-509-11	INDUCTOR	10uH	
L302	1-410-509-11	INDUCTOR	10uH	
L501	1-420-872-00	COIL, AIR-CORE	1.9uH	

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MAIN

Ref. No.	Part No.	Description				Remark
		< IC LINK >				
⚠PS701	1-532-844-21	LINK, IC 3.15A				
⚠PS702	1-532-844-21	LINK, IC 3.15A				
		< TRANSISTOR >				
Q281	8-729-422-57	TRANSISTOR	UN4111			
Q282	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q301	8-729-422-57	TRANSISTOR	UN4111			
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q401	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q402	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q403	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q581	8-729-422-57	TRANSISTOR	UN4111			
Q582	8-729-119-78	TRANSISTOR	2SC2785-HFE			
Q701	8-729-140-04	TRANSISTOR	2SB1116A-L			
		< RESISTOR >				
R201	1-249-417-11	CARBON	1K	5%	1/4W	F
R202	1-249-433-11	CARBON	22K	5%	1/4W	
R203	1-249-417-11	CARBON	1K	5%	1/4W	F
R204	1-249-433-11	CARBON	22K	5%	1/4W	
R205	1-249-393-11	CARBON	10	5%	1/4W	F
R206	1-249-438-11	CARBON	56K	5%	1/4W	
R207	1-249-393-11	CARBON	10	5%	1/4W	F
R208	1-249-393-11	CARBON	10	5%	1/4W	F
R251	1-249-417-11	CARBON	1K	5%	1/4W	F
R252	1-249-433-11	CARBON	22K	5%	1/4W	
R253	1-249-417-11	CARBON	1K	5%	1/4W	F
R254	1-249-433-11	CARBON	22K	5%	1/4W	
R255	1-249-393-11	CARBON	10	5%	1/4W	F
R256	1-249-437-11	CARBON	47K	5%	1/4W	
R257	1-249-393-11	CARBON	10	5%	1/4W	F
R258	1-249-393-11	CARBON	10	5%	1/4W	F
R271	1-249-429-11	CARBON	10K	5%	1/4W	
R272	1-249-429-11	CARBON	10K	5%	1/4W	
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R274	1-249-429-11	CARBON	10K	5%	1/4W	
R275	1-249-437-11	CARBON	47K	5%	1/4W	
R280	1-249-417-11	CARBON	1K	5%	1/4W	F
R282	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R283	1-249-441-11	CARBON	100K	5%	1/4W	
R284	1-249-429-11	CARBON	10K	5%	1/4W	
R285	1-249-433-11	CARBON	22K	5%	1/4W	
R286	1-249-437-11	CARBON	47K	5%	1/4W	
R287	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R288	1-249-441-11	CARBON	100K	5%	1/4W	
R289	1-249-441-11	CARBON	100K	5%	1/4W	
R290	1-249-417-11	CARBON	1K	5%	1/4W	F

Ref. No.	Part No.	Description				Remark
R300	1-247-903-00	CARBON	1M	5%	1/4W	
R301	1-249-411-11	CARBON	330	5%	1/4W	
R302	1-249-432-11	CARBON	18K	5%	1/4W	
R303	1-249-417-11	CARBON	1K	5%	1/4W	F
R304	1-249-417-11	CARBON	1K	5%	1/4W	F
R306	1-249-436-11	CARBON	39K	5%	1/4W	
R308	1-249-417-11	CARBON	1K	5%	1/4W	F
R309	1-249-417-11	CARBON	1K	5%	1/4W	F
R310	1-249-417-11	CARBON	1K	5%	1/4W	F
R313	1-249-437-11	CARBON	47K	5%	1/4W	
R314	1-249-417-11	CARBON	1K	5%	1/4W	F
R315	1-249-417-11	CARBON	1K	5%	1/4W	F
R316	1-249-417-11	CARBON	1K	5%	1/4W	F
R317	1-249-437-11	CARBON	47K	5%	1/4W	
R321	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R322	1-247-864-11	CARBON	24K	5%	1/4W	
R323	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R324	1-247-864-11	CARBON	24K	5%	1/4W	
R325	1-249-401-11	CARBON	47	5%	1/4W	F
R361	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R362	1-247-864-11	CARBON	24K	5%	1/4W	
R363	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R364	1-247-864-11	CARBON	24K	5%	1/4W	
R365	1-249-401-11	CARBON	47	5%	1/4W	F
R370	1-249-417-11	CARBON	1K	5%	1/4W	F
R371	1-249-413-11	CARBON	470	5%	1/4W	F
R372	1-249-413-11	CARBON	470	5%	1/4W	F
R373	1-249-441-11	CARBON	100K	5%	1/4W	
R374	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R375	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R376	1-249-441-11	CARBON	100K	5%	1/4W	
R377	1-249-417-11	CARBON	1K	5%	1/4W	F
R378	1-249-417-11	CARBON	1K	5%	1/4W	F
R381	1-249-417-11	CARBON	1K	5%	1/4W	F
R382	1-249-417-11	CARBON	1K	5%	1/4W	F
R401	1-249-441-11	CARBON	100K	5%	1/4W	
R402	1-249-435-11	CARBON	33K	5%	1/4W	
R403	1-249-430-11	CARBON	12K	5%	1/4W	
R404	1-249-429-11	CARBON	10K	5%	1/4W	
R405	1-249-433-11	CARBON	22K	5%	1/4W	
⚠R406	1-216-453-00	METAL OXIDE	270	5%	2W	F
R407	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R408	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R409	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R410	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R411	1-249-417-11	CARBON	1K	5%	1/4W	F
⚠R412	1-216-453-00	METAL OXIDE	270	5%	2W	F
R501	1-249-417-11	CARBON	1K	5%	1/4W	F
R502	1-249-433-11	CARBON	22K	5%	1/4W	
R503	1-249-417-11	CARBON	1K	5%	1/4W	F

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Ref. No.	Part No.	Description	Remark
R504	1-249-433-11	CARBON 22K 5% 1/4W	
R505	1-249-393-11	CARBON 10 5% 1/4W	F
R506	1-249-435-11	CARBON 33K 5% 1/4W	
R507	1-249-393-11	CARBON 10 5% 1/4W	F
R508	1-249-393-11	CARBON 10 5% 1/4W	F
R571	1-249-426-11	CARBON 5.6K 5% 1/4W	
R572	1-249-441-11	CARBON 100K 5% 1/4W	
R573	1-249-429-11	CARBON 10K 5% 1/4W	
R574	1-249-429-11	CARBON 10K 5% 1/4W	
R575	1-249-437-11	CARBON 47K 5% 1/4W	
R580	1-249-417-11	CARBON 1K 5% 1/4W	F
R581	1-249-417-11	CARBON 1K 5% 1/4W	F
R582	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R583	1-249-441-11	CARBON 100K 5% 1/4W	
R584	1-249-429-11	CARBON 10K 5% 1/4W	
R585	1-249-433-11	CARBON 22K 5% 1/4W	
R586	1-249-437-11	CARBON 47K 5% 1/4W	
R587	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R590	1-249-441-11	CARBON 100K 5% 1/4W	
R591	1-249-441-11	CARBON 100K 5% 1/4W	
R701	1-249-431-11	CARBON 15K 5% 1/4W	
R702	1-249-431-11	CARBON 15K 5% 1/4W	
R703	1-260-083-11	CARBON 47 5% 1/2W	
R704	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R705	1-249-437-11	CARBON 47K 5% 1/4W	
R706	1-249-429-11	CARBON 10K 5% 1/4W	
		< RELAY >	
⚠RY1	1-755-018-11	RELAY	
RY401	1-515-921-11	RELAY (12V)	
RY402	1-515-921-11	RELAY (12V)	
		< TRANSFORMER >	
⚠T901	1-427-781-11	TRANSFORMER, POWER (AEP, UK, EE, CIS)	
⚠T901	1-429-099-11	TRANSFORMER, POWER (E, AUS)	
		< TERMINAL >	
TM101	1-537-842-11	TERMINAL BOARD (REAR SPEAKER)	
TM102	1-537-849-11	TERMINAL BOARD (ANTENNA)(2P) (CENTER SPEAKER)	
		< VOLTAGE SELECTOR >	
⚠VS1	1-762-298-11	SW, AC POWER VOLTAGE SELECTOR (E)	
		< VIBRATOR >	
X301	1-579-125-11	VIBRATOR, CERAMIC (8MHz)	

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Ref. No.	Part No.	Description	Remark
*	A-4377-258-A	PANEL BOARD, COMPLETE *********************	
*	4-949-935-01	CUSHION (FL)	
*	4-971-122-01	HOLDER, FL TUBE	
		< CAPACITOR >	
C620	1-161-494-00	CERAMIC 0.022uF 25V	
C621	1-161-494-00	CERAMIC 0.022uF 25V	
C630	1-164-159-11	CERAMIC 0.1uF 50V	
C640	1-104-905-11	DOUBLE LAYERS 0.22F 5.5V	
C641	1-164-159-11	CERAMIC 0.1uF 50V	
C642	1-124-584-00	ELECT 100uF 20% 10V	
C643	1-104-664-11	ELECT 47uF 20% 10V	
C680	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C681	1-162-286-31	CERAMIC 220PF 10% 50V	
		< CONNECTOR >	
* CN601	1-568-834-11	SOCKET, CONNECTOR 15P	
* CN602	1-568-832-11	SOCKET, CONNECTOR 13P	
		< DIODE >	
D601	8-719-038-63	DIODE SEL5220S-TH8F (CENTER SPEAKER)	
D602	8-719-038-63	DIODE SEL5220S-TH8F (REAR SPEAKER)	
D611	8-719-987-63	DIODE 1N4148M	
D613	8-719-987-63	DIODE 1N4148M	
D640	8-719-987-63	DIODE 1N4148M	
D641	8-719-987-63	DIODE 1N4148M	
		< FLUORESCENT INDICATOR >	
FL601	1-517-399-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-343-99	IC TMP87C814N-1147	
		< COIL >	
L601	1-410-517-11	INDUCTOR 47uH	
L602	1-410-509-11	MICRO INDUCTOR 10uH	
		< TRANSISTOR >	
Q601	8-729-900-63	TRANSISTOR DTA124ES	
Q602	8-729-900-63	TRANSISTOR DTA124ES	
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q612	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
R601	1-249-409-11	CARBON 220 5% 1/4W	F
R602	1-249-409-11	CARBON 220 5% 1/4W	F
R603	1-249-417-11	CARBON 1K 5% 1/4W	F
R604	1-247-807-31	CARBON 100 5% 1/4W	

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PANEL VIDEO

Ref. No.	Part No.	Description				Remark
R605	1-249-411-11	CARBON	330	5%	1/4W	
R606	1-249-413-11	CARBON	470	5%	1/4W	F
R607	1-249-417-11	CARBON	1K	5%	1/4W	F
R608	1-249-417-11	CARBON	1K	5%	1/4W	F
R609	1-247-807-31	CARBON	100	5%	1/4W	
R610	1-249-411-11	CARBON	330	5%	1/4W	
R611	1-249-413-11	CARBON	470	5%	1/4W	F
R612	1-249-417-11	CARBON	1K	5%	1/4W	F
R613	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R620	1-249-417-11	CARBON	1K	5%	1/4W	F
R621	1-249-417-11	CARBON	1K	5%	1/4W	F
R622	1-249-433-11	CARBON	22K	5%	1/4W	
R623	1-249-433-11	CARBON	22K	5%	1/4W	
R624	1-249-429-11	CARBON	10K	5%	1/4W	
R630	1-249-433-11	CARBON	22K	5%	1/4W	
R632	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R633	1-249-429-11	CARBON	10K	5%	1/4W	
R634	1-249-417-11	CARBON	1K	5%	1/4W	F
R650	1-247-807-31	CARBON	100	5%	1/4W	
R661	1-247-807-31	CARBON	100	5%	1/4W	
R662	1-247-807-31	CARBON	100	5%	1/4W	
R663	1-247-807-31	CARBON	100	5%	1/4W	
R664	1-247-807-31	CARBON	100	5%	1/4W	
R665	1-247-807-31	CARBON	100	5%	1/4W	
R666	1-247-807-31	CARBON	100	5%	1/4W	
R667	1-247-807-31	CARBON	100	5%	1/4W	
R668	1-247-807-31	CARBON	100	5%	1/4W	
R669	1-247-807-31	CARBON	100	5%	1/4W	
R670	1-247-807-31	CARBON	100	5%	1/4W	
R671	1-247-807-31	CARBON	100	5%	1/4W	
R680	1-249-406-11	CARBON	120	5%	1/4W	F
R681	1-247-903-00	CARBON	1M	5%	1/4W	
R682	1-249-421-11	CARBON	2.2K	5%	1/4W	F
		< SWITCH >				
S601	1-554-303-21	SWITCH, TACTILE (VIDEO 1/2)				
S602	1-554-303-21	SWITCH, TACTILE (HALL)				
S603	1-554-303-21	SWITCH, TACTILE (DELAY TIME -)				
S604	1-554-303-21	SWITCH, TACTILE (CENTER LEVEL -)				
S605	1-554-303-21	SWITCH, TACTILE (REAR LEVEL -)				
S606	1-554-303-21	SWITCH, TACTILE (SURROUND OFF)				
S607	1-554-303-21	SWITCH, TACTILE (DOLBY PRO-LOGIC)				
S608	1-554-303-21	SWITCH, TACTILE (MODE)				
S609	1-554-303-21	SWITCH, TACTILE (DELAY TIME +)				
S610	1-554-303-21	SWITCH, TACTILE (CENTER LEVEL +)				
S611	1-554-303-21	SWITCH, TACTILE (REAR LEVEL +)				
		< VIBRATOR >				
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)				

Ref. No.	Part No.	Description				Remark
************	************	************************	********	******	******	******
*	1-655-017-11	VIDEO BOARD				
		***********				
		< CAPACITOR >				
C801	1-124-903-11	ELECT	1uF	20%	50V	
C802	1-124-903-11	ELECT	1uF	20%	50V	
C804	1-124-471-00	ELECT	1000uF	20%	6.3V	
C805	1-124-471-00	ELECT	1000uF	20%	6.3V	
C806	1-124-471-00	ELECT	1000uF	20%	6.3V	
C807	1-164-159-11	CERAMIC	0.1uF		50V	
C808	1-126-233-11	ELECT	22uF	20%	50V	
		< CONNECTOR >				
* CNJ801	1-569-500-11	PIN, CONNECTOR 5P				
		< IC >				
IC801	8-759-061-95	IC SN761200N				
		< JACK >				
J801	1-695-317-21	JACK, PIN 2P (VIDEO1 IN/OUT)				
J802	1-766-748-11	JACK 3P (VIDEO2 IN/OUT, MONITOR OUT)				
		< COIL >				
L801	1-410-521-11	INDUCTOR	100uH			
		< TRANSISTOR >				
Q801	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		< RESISTOR >				
R801	1-247-804-11	CARBON	75	5%	1/4W	
R802	1-247-804-11	CARBON	75	5%	1/4W	
R804	1-249-403-11	CARBON	68	5%	1/4W	F
R805	1-249-429-11	CARBON	10K	5%	1/4W	
R806	1-249-403-11	CARBON	68	5%	1/4W	F
R807	1-249-429-11	CARBON	10K	5%	1/4W	
R808	1-249-403-11	CARBON	68	5%	1/4W	F
R809	1-249-429-11	CARBON	10K	5%	1/4W	
R810	1-249-408-11	CARBON	180	5%	1/4W	F
R811	1-249-408-11	CARBON	180	5%	1/4W	F
R812	1-249-408-11	CARBON	180	5%	1/4W	F
R813	1-249-408-11	CARBON	180	5%	1/4W	F
R814	1-249-408-11	CARBON	180	5%	1/4W	F
R815	1-249-408-11	CARBON	180	5%	1/4W	F
R817	1-249-417-11	CARBON	1K	5%	1/4W	F
R819	1-249-417-11	CARBON	1K	5%	1/4W	F

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
4	1-590-036-11	WIRE, FLAT TYPE (13 CORE)	
5	1-690-094-11	WIRE, FLAT TYPE (15 CORE)	
⚠7	1-575-651-71	CORD, POWER (AEP, EE, CIS)	
⚠7	1-590-379-11	CORD, POWER (UK)	
⚠7	1-775-304-11	CORD, POWER (E)	
⚠7	1-775-305-11	CORD, POWER (AUS)	
⚠F1	1-532-203-00	FUSE (T2.0A 250V)	
⚠F2	1-532-203-00	FUSE (T2.0A 250V)	
FL601	1-517-399-11	INDICATOR TUBE, FLUORESCENT	
IC201	8-759-502-32	IC SI-18752N	
IC251	8-759-502-32	IC SI-18752N	
IC501	8-759-502-32	IC SI-18752N	
⚠T901	1-427-781-11	TRANSFORMER, POWER (AEP, UK, EE, CIS)	
⚠T901	1-429-099-11	TRANSFORMER, POWER (E, AUS)	
		ACCESSORIES & PACKING MATERIALS	
*	4-973-307-01	CUSHION (UPPER)	
*	4-973-650-01	CUSHION (LOWER)	
		HARDWARE LIST	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#3	7-682-560-04	SCREW +BVTT 4X6 (S)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.